Indiana Aglime Protects Your **Green**



INSIDE: Your 2021-2022 Indiana Aglime Quality Report





Acidic soil decreases fertilizer effectiveness. Balance your soil pH with Indiana Aglime.

	Percent Utilized			- Fertilizer	Cost of Fertilizer		
Soil Acidity	Nitrogen	Phosphate	Potash	Wasted	Wasted		
Extremely Acid 4.5pH	30%	23%	33%	75%	\$169.37/ac		
Very Strong Acid 5.0pH	53%	34%	52%	54%	\$121.95/ac		
Strong Acid 5.5pH	77%	48%	77%	33%	\$74.52/ac		
Medium Acid 6.0pH	89%	52%	100%	20%	\$45.17/ac		
Neutral 7.0pH	100%	100%	100%	0%	\$0/ac		

Based on a conservative application of 200N, 100P and 100K, \$225.83 per acre -July 2021 average pricing provided by DTN Progressive Farmer (dtnpf.com)









INDIANA AGLIME PROTECTS Your Investment

Soils naturally progress toward low pH, resulting in But today, agricultural trends and acidic soil. fertilizer treatments are accelerating this natural progression. Why is this a problem? Because acidic soils undermine the effectiveness of expensive fertilizers and cause a significant yield drag.

To protect your investment and your yields, balance your soil pH with Indiana Aglime.

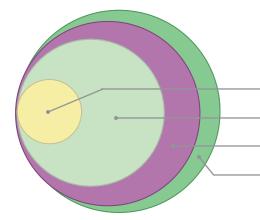
Indiana Aglime ensures the full value of expensive fertilizers • Acidic soil increases the solubility and toxicity of aluminum, iron and manganese,

- · Acidic soils inhibit a plant's ability to uptake and use applied nutrients. When soil pH moves below 6.0, over 20% of applied fertilizer is wasted.
- Grubs and weeds, such as vine weed, thistle, dandelion, butter print and horsetail, thrive in acidic soil.
- which adversely affects your crop yields.
- Acidic soil reduces the breakdown of applied fertilizers into usable plant nutrients. Microbial bacteria necessary for breaking down fertilizers cannot thrive in acidic soils. Without bacteria, fertilizers lay inert until they are washed away by leaching, or until a more balanced soil pH is restored.

INDIANA AGLIME PROTECTS Your Yields

Indiana Aglime is a natural soil remedy, bolstering crop yields through a number of benefits. When your soil is too acidic, apply Indiana Aglime to:

- Balance the soil pH, optimizing your plants' ability to uptake applied fertilizers.
- Slow the leaching of expensive fertilizers below the root zone.
- Add valuable nutrients such as calcium and magnesium back into your soil.
- Improve soil tilth by increasing the number of microbial bacteria that aid in the decomposition of agricultural residue, such as corn stalks and other plant matter.
- Promote deeper root growth in dry conditions.
- Improve drainage in wet conditions.



Microbial Bacteria thrive in Neutral soil Indiana Aglime balances your soil pH

-•	Extremely Acidic	4.4 pH	1.5 million Bacteria
-•	Strongly Acidic	5.2 pH	7.9 million Bacteria
-	Mildly Acidic	6.4 pH	12.3 million Bacteria
-	Neutral Soil	7.0 pH	14.9 million Bacteria



INDIANA AGLIME PROTECTS Your Environment

Indiana Aglime helps to keep water supplies clean and healthy by reducing the amount of nitrates and other fertilizer components that otherwise seep into the groundwater.

Furthermore, Indiana Aglime is a cost-efficient remedy for treating acidification in lakes, reservoirs and ponds. It reduces the toxic effects of aluminum, lead, zinc and other metals harmful to humans and aquatic life.

By adjusting the pH in water, Indiana Aglime supports the survival and reproduction of many fish populations and adds calcium, which aids in the growth and development of bones, scales and shells.



YOUR INDIANA AGLIME Buyers Guide

Test your soil

Regular soil tests provide vital information used to determine the best treatment plan for your specific soil needs. Soil pH, fertility, drainage, organic decomposition and other factors derived from the tests will develop the plan for healthy soil maintenance and optimum yield potential.

How often you should test your soil depends on a number of variables, including soil type, crops grown, amount of rain, irrigation tools, type and amount of applied fertilizer, and other farming practices. As a general rule, experts recommend testing your soil every 2 to 3 years.

How deep you should take your soil samples is a science, but, in general, samples should be taken at 2, 4 and 6 inches from at least three different locations for every two acres.

It's important to note: every laboratory uses its own standard of particle size when recommending Indiana Aglime based on soil test results. Learn your lab's particle-size standard to ensure you buy the correct amount and type of Indiana Aglime.

AGLIME EFFECTIVENESS BY PARTICLE SIZE AND RATE

Physical Description and Use	Particle Size	Within 1 Year	Within 4 Years
Coarse: like sand with fine particles •For sustained pH adjustment •To add calcium or magnesium •For soil treatment	Between the #8 and #60 sieve	~50%	100%
Fine: very fine to pulverized •For rapid pH adjustment •To add calcium or magnesium •For soil treatment •When buyer desires the full value of aglime within the first year	Passing the #60 sieve	100%	Offers no sustained benefit after first year

Particle Size Matters

Common perception is that aglime is a slow-acting material with little to no results until one or two years after application. This is only true for particle sizes larger than that passing through a #8mesh sieve.

Particles passing through a #60-mesh sieve have an immediate effect upon contact with the soil, and are fully used within one year.

Particles passing through a #100-mesh sieve are fully used within one month.

READING THE Indiana Aglime Quality Report

The Indiana Aglime Quality Report indicates the percentage of elemental calcium (Ca) and magnesium (Mg) inherent in the aglime you can buy.

Calcium is necessary for organisms that break down and transform unusable nitrates in the soil into usable plant nutrients. Calcium may be deficient in soils where lime has not been applied, where potash fertilizer is used, or where crops are subject to drought.

Magnesium may be deficient in some soils. Dolomitic or high magnesium Indiana Aglime is the most economical way to add this precious nutrient back into your fields.

PARTICLE SIZE + PURITY = RNV

Understanding the significance of these two variables is key to making the wisest aglime sourcing selection for optimum results and value.

Particle Size Sieve Analysis

Particle size has a bearing on how fast Indiana Aglime will react in your soil and is depicted by the percent passing through a specified sieve size. #8 and #60 are the most commonly used measures.

Acidic soils needing an immediate pH balance adjustment call for a high percent of fine particles small enough to pass through #60 sieve.

To ensure full use of applied fertilizers, specify an Indiana Aglime product with a mix of coarse and fine particles, ensuring both a quick and sustained interaction.

Purity CCE NV Percent

Chemical purity is defined as "CCE NV percent" (or Calcium Carbonate Equivalent Neutralizing Value Percent).

Simply stated, CCE NV is a measure of an Indiana Aglime product's ability to neutralize soil acidity, relative to that of pure calcium carbonate. For example, a CCE of 100 is equal to pure calcium carbonate.

Therefore, the higher the aglime product's CCE, the less of it is needed to neutralize the soil.

RNV INTERACTION

This figure identifies the overall effectiveness of any particular Indiana Aglime product. The RNV percent, or Relative Neutralizing Value, indicates the interaction between particle size and chemical purity during the first year.









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[ndia		2021-2022 Quality Report		(Mesh Size) Percent Passing			CCE NV%	Ca%	%6W	RNV%
County Adams	Producer Member	Kari Reynolds (765) 220-5579	Sample	# 8	#60 27	23	101.7	21.2	11.3	54.1
	Linn Grove - Bluffton, IN US AGGREGATES	kari.reynolds@usagg.com Kari Reynolds (765) 220-5579		90	31	25	106.6	21.7	12.4	64.2
Allen	Pleasant Mills - Decatur, IN HANSON AGGREGATES MIDWEST	kari.reynolds@usagg.com Kevin Cross (260) 615-3247			-					-
	Ardmore Quarry - Fort Wayne, IN STONE-STREET QUARRIES, INC.	kevin.cross@lehighhanson.com Phill Dilley (260) 639-6511		99	83	73	101.4	21.6	11.4	92.3
D (1)	Poe Quarry - Hoagland, IN	pdilley@stonestreetquarries.com		99	95	81	94.4	20.9	10.4	91.9
Bartholomew	US AGGREGATES Columbus - Columbus, IN	Jordan Holt (317) 538-8467 jordan.holt@usagg.com		90	34	29	97.2	26.1	7.3	60.2
Carroll	US AGGREGATES Delphi Plant - Delphi, IN	Ross Larimore (765) 413-7779 rlarimore@usagg.com		97	32	23	100.5	21.6	11.4	64.8
Cass	ENGINEERING AGGREGATES CORP.	Darin Oliver (574) 753-5506	Sample A	95	49	44	90.4	25.8	6.1	65.4
	Logansport Plant - Logansport, IN	darino@engagg.com	Sample B	95	39	35	97.7	22.1	9.7	65.5
Clark	MULZER CRUSHED STONE, INC.	Greg Hagedorn (812) 430-2516	Sample A	89	32	27	97.6	21.4	10.3	59.1
	Charlestown Plant - Charlestown, IN	greg.hagedorn@mulzer.com	Sample B	86	33	27	101.2	23.4	9.8	60.2
Crawford	MULZER CRUSHED STONE, INC. Cape Sandy Quarry - Leavenworth, IN	Greg Hagedorn (812) 430-2516 greg.hagedorn@mulzer.com		99	38	31	95.7	33.2	2.6	65.7
	MULZER CRUSHED STONE, INC. Temple Quarry - English, IN	Greg Hagedorn (812) 430-2516 greg.hagedorn@mulzer.com		93	28	22	91.4	32.1	3.0	55.4
	MULZER CRUSHED STONE, INC. Tower Quarry - Leavenworth, IN	Greg Hagedorn (812) 430-2516 greg.hagedorn@mulzer.com		96	33	25	97.2	33.5	2.7	63.1
Decatur	NEW POINT STONE COMPANY	Jeff Wanstrath (812) 663-2021		93	40	33	93.4	29.9	4.1	62.2
	Harris City Quarry - Greensburg, IN New Point Stone Company	jeffw@newpointstone.com Jeff Wanstrath (812) 663-2021		97	41	35	92.0	28.2	4.5	63.8
Franklin	New Point Quarry - New Point, IN	jeffw@newpointstone.com	Sample A		92.6	21.1	9.5	64.9		
	NEW POINT STONE COMPANY Derbyshire Quarry - Laurel, IN	Jeff Wanstrath (812) 663-2021 jeffw@newpointstone.com	Sample B	90	32	26	92.9	24.9	6.8	56.8
Grant	IRVING MATERIALS, INC.	Mike Gross (765) 661-0312		96	35	27	97.1	36.8	0.9	63.7
Hamilton	Pipe Creek Jr Swayzee, IN IRVING MATERIALS, INC.	mike.gross@irvmat.com Mike Gross (765) 661-0312								
	Stony Creek - Noblesville, IN MULZER CRUSHED STONE, INC.	mike.gross@irvmat.com Greg Hagedorn (812) 430-2516		97	35	29	90.7	30.3	2.7	60.1
	New Amsterdam Quarry - New Amsterdam, IN	greg.hagedorn (812) 430-2516 greg.hagedorn@mulzer.com		93	36	30	96.4	28.7	5.3	62.2
Howard	Martin Marietta Kokomo Plant - Kokomo, IN	Brent Leininger (765) 459-3194 brent.leininger@martinmarietta.com		97	35	30	87.5	32.0	1.8	58.0
Huntington	IRVING MATERIALS, INC. Huntington Plant - Huntington, IN	Mike Gross (765) 661-0312 mike.gross@irvmat.com		96	37	29	103.9	21.5	11.8	68.8
Jay	US AGGREGATES Portland Plant - Portland, IN	Kari Reynolds (765) 220-5579 kari.reynolds@usagg.com		100	100	97	107.6	21.7	12.7	107.5
Lake	BEEMSTERBOER AGGREGATES South Shore Plant - Gary, IN	Rich Droske (219) 746-8215 richard.d@beemcompanies.com		72	18	13	105.5	28.8	5.5	47.6
	PHOENIX SERVICES, LLC Port of Indiana - Portage, IN	Paul Overton (219) 787-0010 paul.overton@phoenix-services.com		79	20	13	95.0	27.7	6.1	46.9
	SOUTH LAKE STONE Hebron Plant - Hebron, IN	Derrick Norris (734) 255-6526 derrick.norris@southlakestone.com		100	45	36	97.1	20.7	10.8	70.0
	US Aggregates	John Masterson (317) 771-8599	Sample A	91	24	19	106.8	21.7	12.5	61.5
	Lowell Plant - Lowell, IN	jmasterson@usagg.com	Sample B	69	23	19	100.5	21.2	11.2	46.0
Lawrence	Rogers Group, Inc. Mitchell Crushed Stone - Mitchell, IN	Brent Baker (812) 345-5271 brent.baker@rogersgroupinc.com		85	32	26	95.4	36.0	1.5	55.9
	Rogers Group, Inc.	Brent Baker (812) 345-5271	Sample A	81	30	24	94.9	35.8	1.2	52.5
-	Sieboldt Quarry - Springville, IN	brent.baker@rogersgroupinc.com	Sample B	100	92	78	92.7	35.2	1.1	89.0
	US AGGREGATES Springville - Springville, IN	Jordan Holt (317) 538-8467 jordan holt@usagg.com		98	43	37	97.9	29.2	5.0	68.6

US AGGREGATES Jordan Holt | (317) 538-8467 Springville - Springville, IN jordan.holt@usagg.com

*Samples taken by The Aglime Council in 2021. Samples tested by Bowser-Morner Testing Laboratories, Dayton, OH, AASHTO/ISO 17025 Accredited Laboratory - USACE Validated ©2021 The Aglime Council of Indiana

For more information, visit aglime.org

County	Producer Member	Contact	Sample	(M 	ve Ana esh Si Percer Passin #60	ize) nt Ig	CCE NV%	Ca%	Mg%	RNV%
Marion	L&L BULK MATERIALS Kentucky Ave Indianapolis, IN	Dawn or Joe Littleton (317) 889-1717 Dawn@llbulktrans.com Joe@little-ton.com		92	56	52	79.6	19.9	7.4	58.8
	LEHIGH HANSON NORTH REGION Harding Street Quarry - Indianapolis, IN	Don Roadruck (317) 491-0681 Sample don.roadruck@hanson.com	Sample A	96	44	38	92.7	28.0	4.5	65.0
Miami	HANSON AGGREGATES MIDWEST LLC	Cliff Lingerfelt (317) 473-1028	Sample B	82 92	31 30	26 26	94.5 96.4	36.7	0.5 8.9	53.4 58.5
Monroe	Milner Quarry - Peru, IN ROGERS GROUP, INC. Bloomington Plant - Bloomington, IN	clingerfeldt@lehighhanson.com Chris Hill (812) 320-5104 chris.hill@rogersgroupinc.com		100	52	26	97.9	37.8	0.4	74.2
Montgomery	EDW. C. LEVY CO. Whitesville Mill Service - Crawfordsville, IN	Wayne Goeman (219) 689-1955 wgoeman@edwclevy.net		97	34	19	109.1	34.3	2.6	71.8
Newton		Josh Trader (765) 202-1239	Sample A	91	24	19	103.6	21.2	12.0	59.6
	Newton County Stone - Kentland, IN		Sample B	93	26	20	102.5	21.1	11.8	61.0
Porter		Paul Overton (219) 787-0010 paul.overton@phoenix-services.com	Sample A	83	25	17	96.0	29.8	4.9	51.5
	PHOENIX SERVICES, LLC Port of Indiana - Portage, IN		Sample B	100	100	100	90.9	28.8	4.7	90.9
			Sample C	88	44	38	94.8	29.4	4.9	62.4
Pulaski	Hanson Material Service Francesville Quarry - Francesville, IN	scott.malpasuto@lehighhanson.com	Sample A	89	9	4	104.5	21.5	12.2	51.0
			Sample B	84	19	15	105.4	21.5	12.3	54.3
	US AGGREGATES Francesville Plant - Francesville, IN	imasterson@usaga.com	Sample A	69	20	16	106.4	21.7	12.6	47.0
			Sample B	91	28	21	103.5	21.4	12.3	61.6
Putnam	HANSON AGGREGATES MIDWEST LLC Putnamville Quarry - Cloverdale, IN	Cliff Lingerfelt (317) 473-1028 clingerfeldt@lehighhanson.com		96	36	30	94.6	35.5	1.1	62.5
	MARTIN MARIETTA Cloverdale Quarry - Cloverdale, IN	Brent Leininger (765) 459-3194 brent.leininger@martinmarietta.com		100	39	33	91.6	32.7	2.0	63.5
	243 Quarry - Cloverdale, IN j	iordan.holt@usagg.com	Sample A	86	32	28	93.1	28.5	5.1	55.0
Dendelah			Sample B	100	58	38	95.0	37.6	0.2	75.0
Randolph	Ridgeville Plant - Ridgeville, IN	Kari Reynolds (765) 220-5579 kari.reynolds@usagg.com		86	27	22	105.8	21.6	12.0	59.3
Ripley	HANSON AGGREGATES Versailles Plant - Versailles, IN	Gary Huffman (812) 525-5172 gary.huffman@lehighhanson.com		79	29	25	99.2	22.8	9.5	53.3
	New POINT STONE COMPANY Napoleon Plant - Napoleon, IN	Mike Malinoff (513) 260-7831 mike.malinoff@jrjnet.com	Sample A	99	46	40	91.2	33.0	1.5	66.1
			Sample B	100	47	36	95.0	35.3	0.7	69.6
Rush	Rush County Stone Co., Inc. Milroy Plant - Milroy, IN		Sample A	73	27	23	95.3	27.1	6.3	47.3
o "			Sample B	76	31	28	102.9	23.4	10.0	55.4
	HANSON AGGREGATES Scott County Quarry - Lexington, IN	Gary Huffman (812) 525-5172 gary.huffman@lehighhanson.com		95	38	33	96.3	31.1	3.3	63.7
Shelby	NEW POINT STONE COMPANY	jeffw@newpointstone.com	Sample A	93	37	32	105.1	23.2	10.5	68.2
	St. Paul Plant - St. Paul, IN		Sample B	97	34	28	91.7	31.2	2.9	59.9
Mahaah	US AGGREGATES Flat Rock - Flat Rock, IN	Jordan Holt (317) 538-8467 jordan.holt@usagg.com		70	22	18	96.5	32.9	2.4	44.4
	WEST PLAINS MINING, LLC Kentner Creek Quarry - Wabash, IN	Kate Draper (260) 571-7054 kate.draper@westplainsmining.com		94	28	24	96.4	32.6	2.1	59.0
Wayne	BARRETT PAVING MATERIALS, INC. Richmond Plant - Richmond, IN	Mark Comer (937) 424-9111	Sample A	100	47	37	104.4	25.8	8.6	76.7
		mcomer@barrettpaving.com	Sample B	100	100	100	104.9	26.2	8.4	104.9
	HANSON MATERIAL SERVICE Monon Quarry - Monon, IN	Scott Malpasuto (765) 822-0254 scott.malpasuto@lehighhanson.com		87	19	14	106.2	22.1	11.8	56.6
	LEHIGH HANSON, INC. Thornton Quarry—Thornton, IL	Scott Malpasuto (765) 822-0254 scott.malpasuto@lehighhanson.com		82	26	21	106.0	21.4	12.4	57.0
Kentucky - Carroll	PHOENIX SERVICES, LLC North American Stainless - Ghent, KY	Paul Overton (219) 787-0010 paul.overton@phoenix-services.com		100	52	42	110.5	35.9	5.1	84.0











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