

Low-Disturbance Manure Injection: Calculating Economic Returns



Eric Rosenbaum
Executive Director, PA4R Alliance

Made Possible with Funding from:



NFWF



Chesapeake Bay Stewardship Fund



4Rs of Nutrient Stewardship



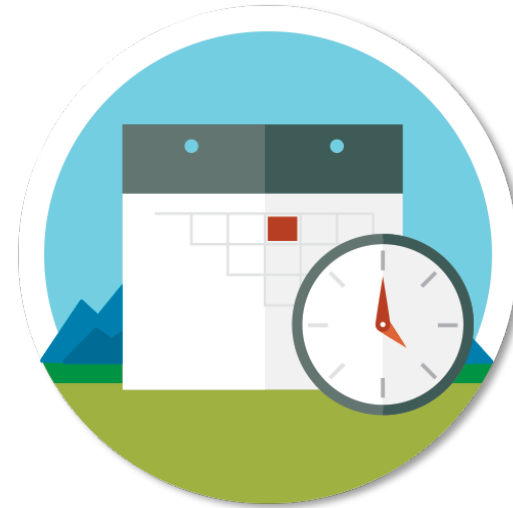
RIGHT SOURCE

Matches fertilizer type
to crop needs



RIGHT RATE

Matches amount of
fertilizer to crop needs



RIGHT TIME

Makes nutrients
available when crops
need them



RIGHT PLACE

Keeps nutrients
where crops can use
them

Case Study: Purchased Equipment

4R Economics – 6,000 gal/A Dairy Manure



*Annual cost per acre,
based on 250A of
injection / year for 10
yrs*

| SURFACE APPLICATION + NO-TILL + NMP | INJECTION + NO-TILL + NMP | INJECTION + NO-TILL + ADVANCED NM |
|---|---------------------------------|---|
|---|---------------------------------|---|

| | | | |
|--------------------------|---------|---------|--------|
| Application Equipment | \$21 | \$52.4 | \$52.4 |
| Labor, Fuel, Maintenance | \$0 | \$10 | \$10 |
| Fertilizer | \$37.8 | \$18.90 | \$0 |
| Sidedress Application | \$18 | \$0 | \$0 |
| Adaptive Management | \$0 | \$0 | \$10 |
| Planning Costs | \$1.00 | \$2.00 | \$2.00 |
| Annual Cost | \$77.80 | \$83.3 | \$74.4 |



Eric Rosenbaum

Executive Director, PA4R Alliance

(484) 788-7263

4Rmidatlantic.com

ericrosenbaum@rosetreeconsulting.com

Thank You.