Communicating with Mid-Atlantic Farmers

Overcoming Barriers to 4R Nutrient Stewardship



A survey completed by over 200 corn, soybean, and small grain farmers in Delaware, Maryland, Pennsylvania, and Virginia in winter of 2021-2022 researched barriers to adoption of 4R practices. The average respondent was 60 years old and farmed 630 acres, most of which were leased. Read on to learn our key findings! Find the full report at 4RMidAtlantic.com/Reports

Make the economic case for 4R

Economic factors such as profitability, input costs, and crop yields topped farmers' reasons for choosing to adopt or not adopt 4R practices.



What are the 4 Rs?

Applying nutrients from the Right source, at the Right place, Right time, and Right rate



What are 4R practices?
We surveyed farmers about the agronomic

practices below:

>75% of Growers

Have a written nutrient management plan, split their nitrogen applications, use variable rate technology

EXISTING ADOPTION OF 4R PRACTICES

50-75% of Growers

Perform grid or zone soil sampling

25-50% of **Growers**

Use cover crops, use nitrogen modeling

<25% of Growers

Inject liquid manure, incorporate their commercial fertilizer into the soil

4R MID-ATLANTIC

Address limitations

Limitations to adopting 4R practices included access to the right equipment and technology, as well as difficulties with timing and weather. 77% of growers supported financial assistance programs, and the leading desire for assistance was in reducing costs of equipment needed for 4R Nutrient Stewardship.

Make connections

Depending on the question asked, 44 to 65% of farmers were concerned about local water quality, or that nutrient losses from their farm impacted their crop yields, profitability, or soil health. Identifying and communicating messages that make agronomic, environmental, and financial impacts clear are essential.



Gather momentum

Most growers surveyed were already splitting their nitrogen applications over the growing season and using variable rate technologies. However, these were also the two 4R practices that growers were most interested in increasing.

COMMUNICATING THE 4Rs

The farmers we surveyed found on-farm trials to be most helpful in learning about 4R practices. Their most influential sources of information about nutrient management were [#1] personal experience, [#2] crop consultants, and [#3] extension agents.

In-person events - like farm demonstrations, field days, and farm schools or trainings - were identified as being the most helpful ways to communicate 4R practices. Least helpful were online methods like blogs, emails, podcasts, social media, YouTube videos, and websites. Printed materials fell in-between.



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