

Optimizing Nutrient Uptake with 4R Nutrient Stewardship



**BETTER PLANNING.
BETTER YIELDS.
START YOUR
4R PLAN**

4R Nutrient Stewardship is a science-based suite of best management practices that optimize nutrient uptake by using the right source of nutrients at the right rate, right time, and in the right place. Work with a Certified Crop Advisor to develop a 4R plan tailored to your farm.

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Getting the Most Out of Your Fertilizer Application

There's no one-size-fits-all fertilizer plan for growers. Every field has different nutrient needs, every season brings different growing conditions, and every year brings new market and geopolitical pressures that can impact global supply and on-farm decisions. In an increasingly unpredictable environment, making informed nutrient management decisions has never been more important.

Fertilizer is essential for growing healthy, hearty crops. How nutrients are managed in the field directly affects crop performance, nutrient uptake, soil health, and long-term productivity.

A Flexible Framework Built for Your Fields

The 4R Nutrient Stewardship framework helps growers balance fertilizer applications to the specific needs of their soil and crops, improving nutrient efficiency, supporting stronger crop performance, and protecting long-term field productivity.

Built around four core science-backed principles, applying the Right Source of fertilizer, at the Right Rate, at the Right Time, and in the Right Place, the 4Rs help ensure nutrients are available where they can deliver the greatest benefit to the crop.

When nutrients are applied more precisely, more of that investment stays in the field working for the crop rather than being lost to the environment. The result is improved nutrient use efficiency, stronger return on investment, and greater value from every acre.

While over half of surveyed Canadian producers report feeling aligned with 4R principles, Fertilizer Canada's 2024 Fertilizer Use Survey found that 79.6 per cent still do not have a formal 4R plan in place, highlighting a significant opportunity to formalize existing practices and strengthen nutrient management across Canadian farms.

Efficient Nutrient Management Starts with Soil Sampling

Efficient fertilizer management starts long before the fertilizer hits the field.

Every acre carries a different nutrient profile, shaped by soil type, crop history, moisture conditions, weather patterns, and years of management decisions. Those variables influence how nutrients move through the soil, how available they are to the crop, and how effectively the crop can access and utilize nutrients to support growth and yield potential.

That's why soil sampling remains one of the most important cost-effective tools in modern nutrient management.

A soil test gives growers a clearer understanding of what the field can already supply to the crop and where additional nutrients are needed to support performance and yield potential. Instead of relying on generalized recommendations, fertilizer decisions can be built around the actual needs of the crop.

Without accurate soil information, nutrients may be applied where they deliver limited return, while other areas of the field may not receive enough to support the crop during critical stages of growth. The result can be lower nutrient efficiency and increased risk of nutrient loss.

Good soil information changes that.

It gives growers and agronomists the ability to make more precise nutrient decisions, improve fertilizer performance, and maximize the value of every fertilizer application across the operation.

Turning Soil Information into a 4R Plan

Soil sampling provides the foundation. A 4R plan turns that information into a strategy built for the realities of your farm.

By working with a 4R Designated agronomist or Certified Crop Adviser (CCA), growers can take the results of their soil tests and turn them into a practical nutrient management strategy tailored to their operation.

A 4R plan helps bring every nutrient management decision together, from timing and placement to source and application rates into a coordinated approach designed around the needs of the crop, the field, and the growing season.

That collaboration also helps growers get the most value from both their fertilizer investment and the agronomic expertise supporting their farm. Using soil test results, field history, crop goals, and local growing conditions, growers and agronomists work together to develop a plan that help nutrients work more effectively across the operation.

Built around real field data and practical agronomic expertise, a 4R plan helps growers turn information into better fertilizer decisions; helping every nutrient application work harder for the crop, the field, and the future of the farm.

Learn more about how 4R Nutrient Stewardship can help support more informed nutrient management decisions on your operation and connect with a 4R Designated agronomist or Certified Crop Adviser near you <https://fertilizercanada.ca/our-focus/stewardship/>.