

## Sustainably Growing Food for You and the World

### Benefits of Plant Nutrients

- Replenishes soil nutrients
- Increases crop yields
- Greater food production on less land



What? 4R Nutrient Stewardship is a sustainable crop nutrition program that works to increase production and profitability for farmers while enhancing environmental protection and improving sustainability.



RIGHT  
N P  
K  
SOURCE

Matches nutrient type to crop needs.

RIGHT  
N P K  
RATE

Matches amount of nutrient to crop needs.

RIGHT  
30  
TIME

Nutrient is applied when plant can best use it.

RIGHT  
PLACE

Applied at place (level) where plants can absorb.



Soil testing is the key to determine type, amount and place nutrient is needed.



Right place helps avoid runoff or leaching into surface or groundwater.

**Why?** The Great Lakes, Lake Erie in particular, are experiencing challenges to the health of their ecosystems. Dissolved Phosphorus has been linked to increased occurrences of Harmful Algal Blooms.

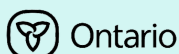


### The Ontario agriculture industry:

- Is committed to being a part of the solution to ensuring the Great Lakes remain "drinkable, swimmable and fishable."
- Recognizes the importance of environmental stewardship and its role in ensuring the proper use of plant nutrients.
- Recognizes the growing global demand for sustainably grown ingredients.



4R Nutrient Stewardship is implemented across Ontario through a Memorandum of Cooperation (MOC). The MOC is currently with Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Fertilizer Canada, Ontario Agri-Business Association, Grain Farmers of Ontario, Ontario Federation of Agriculture, and Christian Farmers Federation.



### Ontario 4R Nutrient Stewardship Certification

- Promotes efficient use of nutrients
- Works to keep nutrients out of watersheds
- Informs about the latest research
- Aids in adaptation to new technology
- Encourages agri-retailers, nutrient service providers and certified professionals to adopt science based, proven 4R Nutrient Stewardship best management practices (BMPs)



- Customized to fit each farm's unique climatic, soil, cropping and operational conditions.
- The standards, and the corresponding evidence of met standards are audited by a private third-party.
- Currently at 950,000 acres in Ontario under this program across 29 4R Certified Nutrient Service Providers.