

Power Food

Three companies are offering time-tested crop nutrients in innovative ways

By Heather Hudson

here was a time when fiddling with crop nutrients was a farmer's tactic when prices were high. Not in this market. Implementing innovations often means the difference between profit and loss.

That's why the crop nutrient industry is booming and businesses new and old are churning out new nutrient varieties and technologies every season.

We talked to three companies with differing approaches to find out what they're offering in the bid to maximize yield. We also asked the Canadian Fertilizer Institute (CFI) to weigh in on how to balance these high-efficiency products with environmental sustainability, a mounting concern as the need for maximized crop production grows.

"A lot of farmers are used to putting on nitrogen, phosphate or potash, but crops tend to be limited in yield by a shortage of things like copper in wheat or boron in canola. We're helping them drill down even further on a micro level."

- Terry Good, Western Canadian Sales Manager, Alpine Plant Foods

ATP Nutrition

Just over a year old, ATP Nutrition is helmed by Jarrett Chambers from a head office just outside of Winnipeg, MB. Ask him where the future of crop nutrients lies and he'll tell you it's in "Chemtrition™."

"We deal in integrating nutrition with agri-chemicals. The agrichemical industry has done an outstanding job on weed control, insects and staying ahead of diseases. Where we come in is to supply nutrition at the critical growth stages to support a vigorous, healthy plant and allow all inputs to maximize yield potential."

ATP Nutrition will be bringing three products to market this year:

Precede is a seed nutrient dressing that "covers all crops from wheat, canola and barley to soybeans and everything in between." Based on a zinc, manganese and phosphorus formula, it is custom formulated to meet the needs of a particular crop.

Releaf goes on early with herbicide application and is formulated for canola, cereals, soybeans or corn. "It's a phosphorus and potassium-based product but the novelness is the way we put the formulas together to maximize the metabolism of the plant."

In 42PhiTM, the name is meant to say it all. The 4 stands for the four nutrients involved; the 2 represents the two modes of

9 Billion Mouths To Feed

action; and Phi is the golden ratio. Applied later in the plant life cycle, this product was created to address the key nutrients critical to helping finish the crop and play an integral part in the Chemtrition $^{\text{\tiny M}}$ platform.

Alpine Plant Foods

When it comes to crop nutrient innovation, Terry Good lives by the adage, "if it ain't broke, don't fix it."

The Western Canadian Sales Manager for Alpine Plant Foods says his company is not in the business of whipping up new varieties every year. They live by the basics with a few tweaks here and there.

"I'm going on 30 years with this company and we ship more in a day than we shipped in a year back when I started in the early 1980s. We've continued to grow the business over a long time and that wouldn't happen if farmers didn't think what we were doing made sense."

Good says he can put their products and approach down to three main successes:

Seed-placed liquid fertilizer: "Making plant nutrition available with the seed at planting time has been something we've done a lot of research on and have focused our company on for some 30+ years. It's been a huge success everywhere in Canada we've taken it."

Foliar nutrition: "We've adapted the same products using foliar nutrition to make probably our second biggest innovation or success. Using the tissue test, we create a fertility program that tells the whole story of the plant and directs us on what we need to do next year."

Micronutrients: "A lot of farmers are used to putting on nitrogen, phosphate or potash but crops tend to be limited in yield by a shortage of things like copper in wheat or boron in canola. We're helping them drill down even further on a micro level."

Koch Agronomic Services

While new to the enhanced efficiency market, Koch Agronomic Services is blending the novel with the tried and true. Formed in 2010, this subsidiary of Koch Fertilizer recently acquired nitrogen stabilizer company AGROTAIN International. According to Vice President of Commercial Operations Tom Snipes, the vision for the business is to be a leader in enhanced efficiency fertilizer.

With the acquisition of the Nitamin® brand from Georgia Pacific Chemicals, AGROTAIN International's portfolio of projects and a host of seasoned scientists on board, he expects they will be hatching new technologies to add to the market. "We certainly have the same science-based vision as we build up R&D and agronomic capability."

In the meantime, they'll be offering Nitamin® fertilizer and AGROTAIN stabilizers' complete line-up of products. Kurt

Gabrielson, Koch's R&D Manager, sets the tone of their product development in these areas:

AGROTAIN urease inhibitors: "We've seen urease inhibitors increase significantly in the last several years because of regulatory pressure and the increasing price of nitrogen. Protecting nitrogen investment has become a lot more important and we see technological opportunities here," said Gabrielson.

Nitamin® foliar nitrogen application: While not a new technology, this area is seeing sales increases when packaged with fungicide treatments. Gabrielson expects to see more initiatives in corn and other crops as well as general plant health. "Foliar nitrogen has a lot of benefit in many areas. We will be focusing on this."

Nitamin® NFusion: This slow-release liquid offers growers a lot of flexibility. "This is a real efficient product that keeps nitrogen in place and allows nitrogen to be available in later stages of the crop."



Keeping it safe

In our bid to feed a global population of upwards of 9 billion by 2050, we've got to ensure we don't irrevocably scar the ground from which we'll still be pulling our food with technologies that can do more harm than good when improperly applied.

As one measure to remain good stewards of the land, CFI, the International Plant Nutrition Institute and the U.S.-based The Fertilizer Institute are encouraging farmers to adopt the 4R Nutrient Stewardship system. The science-based approach was developed to help farmers achieve increased production and farm profitability, enhanced environmental protection and improved sustainability. The 4Rs encourage farmers to use "the right source (of fertilizer) at the right rate at the right time in the right place."

"We're going to need good quality land and water [to feed 9 billion people]. Using the 4R approach will not only help improve agricultural production, crop and soil management, and fertilizer efficiency, but it will also minimize the environmental impact," says Kristian Stephens, CFI's Senior Manager of Technical

While new technologies are a boon to the business, Stephens points to other modern practices like soil testing and using GPS units in the fields. These practices work hand in hand with fertilizer products and the 4R Nutrient Stewardship system, so that crops benefit and the environment remains unharmed.

Stephens says one key of implementing the 4Rs is to find the right agronomic expertise to please the farmer while cultivating sustainably. "Retailers can help spread the word of the 4Rs. If they have an agronomist, a certified crop advisor or a professional agrologist on staff, the 4Rs can be used when discussing a plan with their clients."

For more information on the 4R Nutrient Stewardship system, visit www.cropnutrientscouncil.ca.

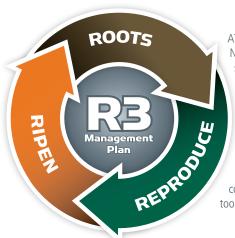
If maximizing yield is every farmer's goal, there are certainly a multitude of options to go about it. With an increasing number of crop nutrient innovations flooding the market, it's more important than ever to both give and get advice that's rooted in evidence-based science. •

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– Jarrett Chambers, President, ATP Nutrition



Powering Growth with Science ™



ATP Nutrition Ltd. is the leader in Plant Nutrient Innovation (PNI). We are a science-based plant nutrient company, committed to the creation of high performance products and nutrient management plans, that maximize the genetic expression of the plant.

ATP's revolutionary R3™ Management Plan is the platform that bridges science and plant health, converting it to an easy to use, simple tool that drives value to your business.

MAXIMIZE YOUR YIELD POTENTIAL WITH:







PreCede is a premium seed dressing containing the key nutrients to "cold start" your crop.

ReLeaf improves metabolism in your plant, which leads to an improved root to shoot ratio, thus promoting overall plant health and vigor.

42Phi's unique formulation allows for maximum nutrient absorption by the plant to pre-empt abiotic stress.

Custom formulations for ReLeaf (or any ATP product) are available upon request. Please refer to the ATP website for a complete list and description of all products. R3, PreCede, ReLeaf and 42Phi are trademarks of ATP Nutrition Ltd.

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