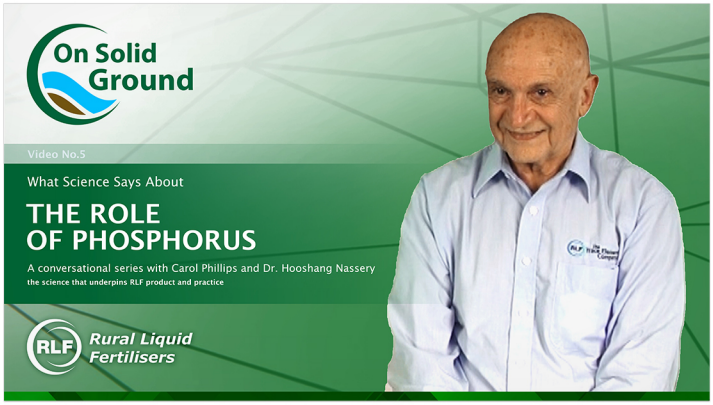

On Solid Ground

What Science Says About

THE ROLE OF PHOSPHORUS

About this Series

An engaging series of 11 videos that feature Dr Hooshang Nassery and Carol Phillips in a conversational style presentation about the science that underpins RLF product and practice.

It has been called ON SOLID GROUND for good reason, because the science of plant physiology provides the indisputable basis upon which all RLF products are developed.

This series will bring a relaxed and simple understanding for farmers and growers everywhere about the science that underpins the RLF brand, and the expertise that goes into every specialised crop nutrition product that RLF manufactures.

Carol Phillips talks with Dr Hooshang Nassery about The Role of Phosphorus

Carol Phillips (CP) : Hooshang, why is phosphorus so important, because I've noticed that all RLF products include phosphorus. So why is it important, so that it has to be in just everything?

Dr Hooshang Nassery (HN) : That's a very good question. Phosphorus is one of the major elements required for plants, along with nitrogen and potassium, but its availability (as we said in the seed) is very limited. And then in the soil, also most of it is bound, and is not mobile – so it is not available for the root to take it up. As such, that as a rule of thumb, we can say 90% of the seed phosphorus is unavailable, and 90% of the soil phosphorus is also unavailable for the plant. In order to bring them into an available form, the root system needs to grow, and it needs to activate bacteria – or excrete enzymes or organic acids – to unlock that soil phosphorus. For that reason, it becomes very important that we do include phosphorus, both in seed products such as BSN, and in foliar product – as we have practically in all our foliars (except nitrogen sources) – and therefore we are assisting the plant with its difficulty to take nutrients like phosphorus from the soil. And of course, going back to the phosphorus in physiology, every step of the physiological process that takes place in the plant, requires the phosphorus for either building blocks, or for energy production. And things like nucleic acid are the example of building blocks, or phospholipid of proteins of membranes, and if you like ATP-ADP (Adenosine Triphospate-Adenosine Diphosphate), in terms of energy production, which is important in respiration and photosynthesis. So without phosphorus we don't have good photosynthesis, we don't have good respiration or proper energy production...

CP : ... so the plant struggles

HN : ... and the plants will not do their best.

CP : Okay. Thank you.

HN : Thank you.

About Dr Hooshang

Hooshang is RLF's Plant Physiologist and he heads the company's Research, Development and Technical team. He brings the knowledge and enthusiasm for the industry with over 40 years of experience and he has played a central role in a number of new product developments, including the world-leading and innovative seed nutrition technology BSN. Contact Hooshang.

About Carol

Carol is RLF's Communications, Media and Policy consultant. She is the main author of information, marketing and website publications and part of her role is to plan targeted marketing and information strategies and resources for both customers and the wider RLF team. Contact Carol.

RLF Product Categories

RLF has 11 key product categories.

They all include specially developed and technically advanced crop nutrition products for all crop types, deficiencies and conditions.

The links at the following categories identify the specific, high-technology products available in each of the product categories.

- Seed Priming
- Ultra Foliar
- Rapid Foliar
- Crop Specific Foliar
- (Single Element) Foliar
- NPK Foliar
- Nutrient Charger
- Pasture
- Fertigation
- Root Boost
- Bulk Liquids

Contact Details

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