PolyNPlus

The revolutionary foliar fertiliser range

2018 trial results

Fertiliser Services

Extensive trials throughout the 2018 growing season have confirmed the exciting potential of **PolyNPlus**, the revolutionary new foliar nitrogen range from leading crop nutrition specialist BFS Fertiliser Services.

The independent on-farm trials have clearly demonstrated that there are significant benefits to be gained by using **PolyNPlus** to reduce reliance on soil-applied nitrogen products. Soil-applied nitrogen is at its least efficient during long summer days, when the soil and atmosphere are dry, with sometimes no more than 20% taken up by the plant.

PolyNPlus has been shown to be an effective foliar nitrogen fertiliser and can replace some conventional soil-applied nitrogen - the tests have confirmed that it is virtually 100% efficient. Moreover, the 2018 results also show that **PolyNPlus** reduces the risk of nitrate leaching and ammonia volatilisation.

The latest trials were designed to develop a greater understanding of **PolyNPlus** and how it can be integrated into the fertiliser programme to achieve much greater nutrient efficiency. What they have also shown is that farmers using **PolyNPlus** are able to leave decisions on how much product to apply to a crop until later in the growing season.

And, because **PolyNPlus** can be tank-mixed safely with many crop protection products, the number of passes that farmers need to make through a crop can be reduced.

There are other advantages. **PolyNPlus** carries a much lower risk of scorch than soil-applied liquid nitrogen products. This is due to its low salt index. It means that **PolyNPlus** is safe to apply later in the growing season, although normal precautions to avoid scorch should be observed, i.e. by not spraying in hot or windy conditions or when the crop is under stress.

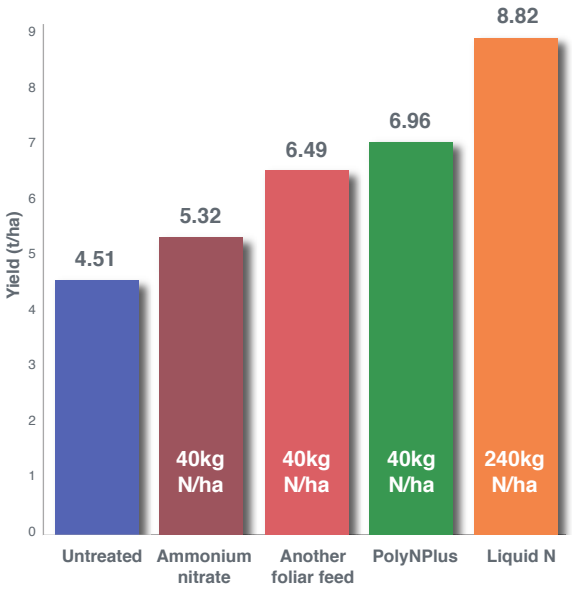
The trials also suggested that the adhesive nature of **PolyNPlus** actually increases the effectiveness of crop protection products such as chlorothalonil, by helping them to spread and adhere to the target leaf. As with all applications, of course, timing is crucial.

Micro-nutrients can be added to **PolyNPlus** at the correct stage of the plant's development to maximise yield by rectifying any trace element deficiency that could limit the crop potential.

There are important environmental benefits too. Unlike soil-applied nitrogen, **PolyNPlus** significantly reduces atmospheric loss by volatilisation and leaching into water courses.

2018 winter wheat yield: different nitrogen sources

PolyNPlus applied at GS 25, 30, 31, 32, 39, 45, 59



Important note: The green bar in the chart shows the trial results using PolyNPlus on its own. From growth stage 32, when there is sufficient leaf area, PolyNPlus is a virtually 100% efficient form of nitrogen. This is because it is almost fully absorbed by the crop, allowing nitrogen to be translocated to the grain, thereby improving the yield. When PolyNPlus is used in a co-ordinated programme with soil-applied nitrogen, high yields can be achieved with less nitrogen.

How to use PolyNPlus

Cereals

- Apply at least 140-180kg/ha soil-applied nitrogen on wheat before GS32.
- Follow this with **PolyNPlus** applications at T2, T3 and, if required, at T4.
- PolyNPlus should be applied at maximum of 25l/ha at T2 and T3 to replace 40kg/ha per application of soil-applied nitrogen.
- Initial trial results showed that **PolyNPlus** increased grain protein content when applied at GS59-65. Further trials are being conducted.

Oilseed rape

- Apply **PolyNPlus** at maximum of 25l/ha at or after flowering; can be combined with sclerotinia prevention products as necessary. This can increase grain yield by 0.25t/ha. Further trials are being conducted.

About PolyNPlus

The new revolutionary **PolyNPlus** range of products from BFS represents a significant breakthrough in the industry's efforts to enhance the efficiency of nitrogen usage by plants while virtually eliminating further damage to the environment.

Nitrate leaching from soil-applied fertiliser is deemed to be a major contributor to ground water contamination, and is both expensive and difficult to eradicate. Furthermore the government has now indicated that it plans to take action to prevent ammonia losses from urea by volatilisation.

International research, meanwhile, is providing increasing evidence that foliar-applied fertiliser, which is not affected by complex soil chemistry, dramatically reduces nitrate and ammonia contamination, whilst proving a far more efficient method of feeding plants during their growing phase.

Formulated with sulphur and selected trace elements, **PolyNPlus** contains molecules of variable chain lengths. The shorter chains are immediately available to the plant while the less soluble, longer chains are assimilated more slowly over several weeks. Because the breakdown process occurs gradually, **PolyNPlus** is at its most effective and contributes to the plant's nutritional needs over a longer period of the growing phase. And there is no loss to groundwater or atmosphere.

The **PolyNPlus** range includes standard popular mixes such as: 30-0-0-18SO_3+ MgO+Mn. In addition, BFS is uniquely able to formulate **PolyNPlus** to contain each individual farmer's or agronomist's specific trace element requirements, thus ensuring their crop gets its exact needs.

Please contact BFS Fertiliser Services to find out how to improve the nitrogen-use efficiency of your crops.

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