Q: When is the best time to apply SR3 wheat?

A: Winter cereals – early spring, when crop growth is resumed(GS25-31). There is no strict relation to the growth stage, but weather conditions are important; ideally before a period of rain to help wash the bacteria down to the root zone.

Spring cereals – post-emergence, ideally before a period of rain.

Q: What equipment do I need?

A: Farm sprayer with agitation mechanism. Nozzles to produce coarse droplets or dribble bar.

Q: Can I mix with pesticides?

A: Although all the herbicides and fungicides we have tested were compatible with these bacteria, we do not recommend tank mixes as the targets of pesticides and SR3 are different; pesticides are applied as fine spray targeting leaves, whereas SR3 is applied as coarse droplets targeting the ground.

Q: Can I apply it with fertilisers?

A: No. Please allow at least one week of leeway between fertiliser and bacteria application. Apply nitrogen first, and later SR3.

Q: How much can I reduce my nitrogen application rate?

A: The reduction of N will be different for every farmer depending on the current N rate and farming practices. Trials results show that reduction by 20-30% N is a good starting point.

Q: Do you have trial work to justify the efficiency of SR3 Wheat?

A: Since 2018, we have ongoing field trials on our monitor farms through collaboration with the UK farmers. These trials have replicated tramline treatments, where thousands of yield data points were extracted from combine harvesters and selected using qGIS. The data from the different treatments were statistically analysed using R studio. Please see our website for details and results.

Our products are also independently tested by various agronomy UK companies (e.g. Agrovista, Agrii, ProCam, BBRO, Germains etc.), collaborating with universities and NIAB. UK results were replicated in Hungry during independent trials for registration.

Q: What does the product look like?

A: SR3 comes in a box containing three or four 50ml infusion bags of aseptically produced and packed bacteria specially tuned for the specified crop. There is also a 1L bottle of biostimulant that will promote rapid bacterial multiplication, plus one sachet of dechlorinating agent for treating the water used with this product. One box treats 5ha field area.

Q: How potent is your product?

A: SR3 bacterial bioinoculant contains 10^{10} viable bacterial cells to treat 5 hectare area. Our stringent QA procedure enumerates only the viable bacterial cells in the product before each batch is issued for delivery.

Q: If I do not want to alter my N input, is there merit in the SR3 application?

A: Yes; our data consistently shows that SR3 wheat gives yield uplift without changing current agronomical practices, including the fertigation regime.

Q: How do I store the product, and what is the self-life of it?

A: Store between 4°C and 30°C away from sunlight. Shelf-life – 18 months from receiving the product.

Q: Can I apply the product in autumn?

A: Yes. However, we recommend topping up the bacteria with a spring application when plants start growing actively.

Q: Do I have to use the dechlorinating agent if I am not using tap water?

A: No. Although the dechlorinating agent is ascorbic acid (vitamin C), which is known to be beneficial to plants.

Q: Do we need to wash our sprayers before putting SR3 in it?

A: No, as any residuals of pesticides will be very diluted and will not affect the bacterial cells during application. Furthermore, the bacteria were tested against the leading active ingredients of pesticides, and no adverse effects on the bacterial survival were observed.

Q: What makes your product formulation so unique?

A: We offer a tuned consortium for wheat. The different bacterial species in the consortium are packed separately to rule out any possibility of antagonism between the different bacteria during storage. SR3 is a liquid product that is easy to apply using standard farm sprayers. SR3 is supplied with a bottle of Biostimulant; specifically designed to aid with bacterial growth and multiplication at the time of application.

Q: What is the legacy of SR3 bacteria on the following crop?

A: To multiply bacteria splitting into two equal halves under the right conditions. Bacteria decline in winter months due to lower cell metabolic activities and nutrient (less root exudate post crop harvest) availability. Furthermore, bacterial numbers in the soil are driven down further by predatory organisms in the soil such as protozoa and nematodes consuming them, and frost episodes in the

season causing cell lysis. Therefore, over the winter months, microbial populations will be reduced significantly, thus the PGPR used on the previous crop has no significant legacy. Inoculation with more bacteria, that are tuned to the new crop, will become established in the rhizosphere in the spring.

Q: Will my soil benefit from SR3 bacteria application?

A: Conventional farming practices over the years has acted significantly to reduce the microbial populations, adding biofertiliser redress the imbalance.
Beneficial bacteria provide several other benefits to both the soil and the plant. Specifically, the microbes will minimize nutrient leaching, aid in nutrient cycling and acquisition as well as absorption by plants, improving soil structure, enhancing seed germination, stimulate root growth and produce natural plant growth hormones.