



SMART ROTATIONS 2

treating crops & soils

COVER, CATCH FORAGE CROPS & LEYS

SR2 contains soil dwelling Arbuscular Mycorrhizal Fungi (AMF) and Plant Growth Promoting Rhizobacteria (PGPR) that act to increase the effective root area of treated plants. This enhances plant efficiency through the increased acquisition of nutrients and water, up-regulation of natural plant defences and the development of a framework for other beneficial soil microbes.

| AMF | PGPR |
|---|---|
| <i>Funneliformis, Claroideoglomus, Rhizophagus</i> | <i>Gluconacetobacter, Azospirillum, Bacillus, Rhizobium, Phylobacteria, Pseudomonas</i> |
| Increased N and P availability and uptake | Nitrogen fixing |
| Improved crop quality and yield | Phyto hormone production |
| Improved systemic resistance of plants | P solubilisation |
| Increased water use efficiency | Enhanced plant systemic resistance |
| Enhances soil microbial communities for follow on crops | |

MODE OF ACTION

The application of SR2 ensures that inoculated plants can benefit from the association with AMF throughout their lifetime, acting as a vast secondary root system, increasing the root capacity up to 700 times. The beneficial bacteria within SR2, through enzymatic reactions and the production of organic acids, help to break the chemical bonds of soil compounds to release nutrients, to fix nitrogen and to produce plant growth promoting hormones.

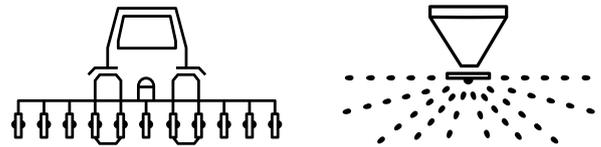
| TREATED PLANTS | FOLLOW ON CROPS |
|---|---|
| Inoculation of cover, catch, forage crops and herbal leys at time of planting through direct drilling or broadcasting allows for early association of the germinating seeds with a high bio diversity of AMF and beneficial bacteria. | During the growing season the fungus will continue to develop hyphae (fungal roots) and sporulate throughout the soil, in effect seeding the soil for the follow on crop. |

PRODUCT FORMULATION

A proprietary blend of UK cultivated AMF & PGPR. This product comprises inoculated carriers in the form of dry granules in the fraction 1-3mm. The AMF component contains spores, mycelia and dried colonised root fragments at MPN >100K/L. The bacteria are provided at CFU/ml >10⁷.

RECOMMENDATIONS

SR2 for application on cover crops, herbal leys and forage grass at a nominal rate of 10Kg/Hectare. For optimal value use with blends with a leguminous component. Highly recommended for use after non-mycorrhizal associating crops of the families brassicaceae and amaranthaceae to redress decline in soil function. For cover crops containing only mustard or forage beet use SR3.



DIRECTIONS FOR USE

Suitable for seed drilling and broadcasting using micro applicators including Stocks AG and Techneat (see manufacturer's recommendations for settings and roller specification). Apply within rotation programme to build soil function.

SMART ROTATIONS seek to maintain a carbon link between microbial communities and host crops during commercial production of food and forage, through intervention with inoculum products and prudent rotation management.

A highly biologically active soil is a farmer's ally in the quest to reduce fertiliser inputs, increase plant health, enhance yields and mitigate pathogen attack. Through the inoculation of covers, catch, forage crops and leys with suitable biological active inoculum farmers can enhance and stimulate the vast microbial resources within their soils to increase the: mineralisation, transportation and ultimate use of soil nutrients.

