

### Use of Amgrow’s Biological Technology, Noculate Liquid in vegetables.

Chris Wren and family run vegetable and turf farms at Severnlea and at Stanthorpe on the granite belt. Chris grows broccolini on both of the farms. In the past the Wren’s have had a problem with pythium disease in the young broccolini transplants. Previously within two to three days after transplanting, some of the young broccoli plants would turn brown on the stems, wilt and die. Several years ago the Wren’s tried Noculate Liquid on their farms as a potential solution to their soil borne disease problems. Early success with soil borne disease control has seen Chris using Noculate Liquid ever since.

Noculate Liquid is applied on the Wren’s farm the day after transplanting through the over head sprinklers in a tank mix with a pre-emergent herbicide. The Noculate Liquid is applied at a rate of 2L/ha in one application to the Broccolini. The ground is irrigated prior to the application. The sprinklers feed in the Noculate Liquid over a 30 minute period.

Chris has been able to grow disease free Broccolini with this method with very few misses at transplanting. Chris said, “The Noculate helps prevent transplant shock and gets the seedlings off to a good start. Where I have not used Noculate Liquid in the past the plant growth has been uneven, with uneven head formation resulting in an intermittent harvest. Noculate Liquid gives me a uniform maturity of the crop which helps with my numbers for the markets. Uneven harvesting is costly and reduces the reliability of produce supply to the markets. This is a set and forget process that I repeat at each planting”. Chris does not use soil fumigants on his farms.

Noculate Liquid is a biological product containing 24 strains of beneficial micro-organisms, humic acid, vitamins, biotin, folic acid and natural sugars designed to enhance the establishment of beneficial microbial populations. The strength of the formulation comes from the diversity of the microbial species and strains present in the product. Noculate Liquid supplements soil and plants with beneficial bacterial and fungal microorganisms to create a healthy rootzone environment which helps plant tolerance to environmental and pest stresses, breaks down organic matter and releases tied up phosphorous, making it available to the plant as well as fixing nitrogen in the soil. Noculate Liquid can also be used as a foliar supplement.



Active Ingredients	CFU per mL
Bacillus subtilis	10 000 000
Bacillus lichenformis	10 000 000
Baccillus azotoformans	10 000 000
Baccillus megaterium	10 000 000
Baccillus coagulans	10 000 000
Baccillus pumulis	10 000 000
Trichoderma viride	10 000 000



Chris Wren on the family farm—photo is per courtesy of the Stanthorpe Border Post