



# AspeN

**Contains live nitrogen fixing bacteria and spores:**

*Azospirillum brasilense* & *Azobacter chroococcum*  
1x10<sup>9</sup> CFU/mL (equiv. 1x 10<sup>12</sup> CFU/L)



Naturally occurring bacteria that can biologically fix atmospheric nitrogen and convert to plant-available nitrogen

AspeN contains two strains of beneficial organisms that are capable of capturing atmospheric nitrogen and converting it to ammonium nitrogen in the soil.

*Azospirillum brasilense* and *Azotobacter chroococcum* are both free living bacteria that can harvest Nitrogen from the atmosphere and deposit it into the soil – giving your plants a free Nitrogen source!

## Benefits:

- ✓ NASAA Certified Organic Input
- ✓ Access FREE atmospheric Nitrogen
- ✓ Produces healthier plants and more vigorous root systems
- ✓ Increases yields and quality
- ✓ Phosphate release
- ✓ Improves tolerance to biotic and abiotic stresses



Available in 20L drums and 1000L IBCs  
NO withholding period



# Application Rate

<b>Seed Drench</b>	10% of tank volume
<b>Soil Furrow Application</b>	2% tank mix solution over seed up to 15L/ha
<b>Fertigaton</b>	15L/ha

**Application target:** Apply to soil surface to provide an inoculating dose of beneficial bacteria to the soil profile. Ensure full and even coverage of soil surface. Bacteria will not survive in UV sunlight and must be watered in or cultivated in to move bacteria away from soil surface.

Target applications to plant rhizosphere. Preferred soil temperature is 12 - 30°C. Avoid flood irrigation for several days after application, so as not to wash bacteria from the soil profile.

Biological fertilisers should be alternated in the spray program with traditional bactericides and fungicides. Do not apply this product within the specified withholding period of traditional bactericides and fungicides.

**For Best Results:** Apply AspeN to soils with high Organic Matter and low soil nitrate levels.

**Timing:** First application at or prior to transplanting or following a weather event to re-establish microbe populations. In ideal conditions, these bacteria can survive in the soil profile for up to 2 years.

**Food supplement:** Soils with an organic matter content less than 2.5% may require addition of a food supplement for best results. The bacteria in AspeN prefer a nutrition source with heavy doses of trace elements. We recommend humate, humic acids or fulvic acids, applied at 3%.

**Colonisation:** Colonisation is quite rapid and can occur in as little as several hours under suitable conditions, though is generally completed in 2 - 3 days.

**Storage and Handling:** Read safety directions and SDS before use. While handling and applying microbial products personal protective equipment should be worn. Store the original container in a dry place away from direct sunlight and below 30

Use as soon as possible after opening but if this cannot be achieved then refrigerate immediately after use and use within 3 months. Contamination of contents may occur at any time after opening and Novum Lifesciences takes no responsibility for opened product not used immediately.

**Directions for use:** Ensure compliance with your quality assurance code of practice regarding the use of microbial products before use. It is recommended that accurate written records of each spray application are kept.

**General Information:** This is a biological product. Colour, smell and consistency may vary between batches.

**Mixing:** Prior to opening, shake or agitate the container vigorously, then add the required quantity of AspeN to water in the tank while stirring or with agitators in motion. Maintain agitation until spraying is complete.

**Cleaning Up:** Equipment should be thoroughly cleaned by rinsing with water several times. Sanitise tank before and after use.

**Compatibility:** AspeN has been tested for compatibility with various other conventional products including fungicides, insecticides, herbicides and fertilisers. However, as formulations of other manufacturers' products are beyond the control of Novum Lifesciences, all mixtures should be tested prior to mixing commercial quantities. Changes in climatic conditions can alter the sensitivity of plants to mixtures of sprays and Novum Lifesciences cannot be responsible for the behaviour of such mixtures.

**Shelf Life:** The unopened shelf life of this product is 30 months from Date of Manufacture. Please refer to product Certificate of Analysis for batch details. The shelf-life period relates to the time that the product remains above the guaranteed concentration of  $1 \times 10^9$  CFU/mL. Beyond the recommended shelf life, product may still have viable live organisms and spores however efficacy may be reduced. Uncontaminated product may still be safely applied to crops and gardens - it is not necessary to dispose of unused product.

We recommend seeking advice from a qualified agronomist.

### Terms and Conditions of Sale:

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