



## PastureN: Instructions for application and use.



Use the correct pack size for the area to be treated as diluted applications are not effective.

### Preparation for application to pastures.

PastureN contains live microbes and they cannot be tank-mixed with agrochemicals or fertilisers. Exceptions to this are fulvates, humates and diluted organic fertilisers. If co-applying these, make up the tank-mix to near full volume and add the PastureN components **last**. **DO NOT USE CHLORINATED WATER**. Contact MAB for suggestions on how to dechlorinate water if necessary. Water from tanks, dams, rivers etc is suitable.

#### 1. Rehydrating the microbes in the glass vial.

Remove the sealed lid of the vial, and take out the rubber bung. Pour in some water, replace bung, secure, and shake vigorously.

Tip contents into a plastic container. Repeat until all contents of the vial have been washed out and are in the container.

Pour in approximately half a litre of water for each 5 ha vial, secure lid, and shake **thoroughly** for about a minute. Check that the freeze-dried microbes are fully dispersed. **If clumps are visible then shake more until they dissolve**. Top up the container to make one litre. Up to 4 vials (4 x 5 ha doses) can be dissolved into each litre.

#### 2. Bacillus container

Open the Bacillus container carefully and empty contents into the second one or two litre container. Part fill with water, secure lid and shake vigorously until fully suspended. Top up the container to make one litre.

### NOTES

- 1) The microbe solutions can be kept in the fridge for 1 week. **Do not to let them freeze.**
- 2) Do not mix the microbes from the vial and the Bacillus solutions together until preparing the tank mix for application.
- 3) If you are preparing PastureN for a larger area you can mix multiple vials into each Litre of water. Just keep track of how many Ha the solution is to be applied to. Always apply at least the full dose rate. Higher dose rates are not harmful and may be used to restore beneficial soil and root microflora.

#### 3. Amino acids

Open the amino acid packages for the area to which each tank-mix is going to be applied, and dissolve them into the spray tank water by stirring thoroughly. Alternatively, dissolve each 1kg of amino acids powder in a bucket of water first before adding to the tank. The amino acids are totally soluble but may need strong stirring initially to disperse them in the water. Use

more water and **strong** agitation, if necessary, to ensure they are **fully dissolved** before adding to the tank mix.

When all the other inputs are in the tank and the water volume is full, shake the microbe solution containers to ensure they are well mixed, and add to the tank as the last additions.

### **Application to the pasture**

Apply PastureN with a boom sprayer with very coarse nozzles, **well into the moist grass sward**. Centre pivot delivery is also effective.

**Do not apply in windy, drying conditions. Do not apply into a dry pasture.** Apply in as much water as possible and practical, but a to a minimum of 100 litres/ha.

**Do not apply less than one week after or before grazing or cutting**

Once the tank mix is fully prepared apply immediately or within 24 hours (do not allow mix to get hotter than 30 °C if storing for longer than an hour).

### **Application schedule and reducing nitrogen fertiliser rates**

- A. For high production intensity pastures apply PastureN at the start of the main growing season and then every 3 months while pastures are actively growing. Reduce N fertiliser by up to 25% to a maximum of 40 U of N or use smaller reductions and target higher yields.
- B. For intermediate production intensity pastures use two applications during the growing season. Reduce N fertiliser by up to 15%.
- C. For organic pastures apply every 3 months and do not reduce any other sources of organic nutrients.

### **General instructions**

- 1. Do not reduce other nutrients eg P, K, etc while reducing N.
- 2. **Ensure molybdenum levels in soils are adequate** as Mo is necessary for effective N fixation by microbes.
- 3. Do not make cuts to N fertilizer until at least 2 weeks after application of PastureN, to allow microbes time to colonise and start N fixation. In intensive pastures keep the first application of N of the season at standard rate.
- 4. Make cuts to N evenly across the season if possible.

For any enquiries and individual advice contact [TwinN@mabiotec.com](mailto:TwinN@mabiotec.com), MAB Office 07 54 457 151, or tech questions on 0458989282.

WARRANTY DISCLAIMER: THE DIRECTIONS FOR THIS PRODUCT ARE BELIEVED TO BE ADEQUATE AND MUST BE FOLLOWED CAREFULLY. IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT DUE TO FACTORS WHICH ARE BEYOND THE MANUFACTURER'S CONTROL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER (A) MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH REGARD TO THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, THAT EXTEND BEYOND THE STATEMENTS MADE HEREIN, AND (B) SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INDIRECT DAMAGES RESULTING FROM THE USE, HANDLING, STORAGE OR DISPOSAL OF THIS PRODUCT. THE EXCLUSIVE REMEDY AND MANUFACTURER'S TOTAL LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE LIMITED TO DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.