

Optimizing Preferal™ Microbial Insecticide Application and Performance

Preferal is a naturally occurring fungus that infects both foliage and soil dwelling insects. Preferal contains the organism *Isaria fumosorosea* strain Apopka 97 which is a highly virulent strain that is indigenous to the United States. Preferal is comprised of blastospores which provide faster germination and infections that other mycoinsecticides that are comprised on conidia.

Storage

Preferal is comprised of a living organism and therefore needs to be stored in a refrigerated environment to ensure that it is fresh. When you receive your Preferal you should refrigerate the product until you are ready to use it. When stored at 40 degrees Fahrenheit the product will remain viable for one year. If you only use a partial bag, you should push as much air out of the bag, reseal and again refrigerate. DO NOT FREEZE!

Application Techniques

Preferal has the unique quality of a large population of blastospores concentrated on a bran particle. This feature allows for increased nutrition and priming for the germinating fungus. When following label rates, the submersion of the bran granule releases the blastospores into the water used for rehydration. However, often, bran particles do not completely solubilize in water. When working with Preferal, there are two suggestions to alleviate this issue:

- 1) The blastospore is released from the bran granule when submerged in water. Label directions for use indicate that once Preferal is added to water, the mixture needs to be agitated gently every 4 - 5 minutes for 20 - 30 minutes. This should be done in a separate container from the spray tank. After agitation, it is suggested that the mixture sits about 1-3 minutes to let insolubilized bran particles settle on the bottom. With little disturbance, water and spore mix should be removed and put into the spray tank. A strainer with fine mesh to catch particles can also be used to strain the granules from the soluble mixture.
- 2) If possible, based on spray machinery and plant constraints, an increased spray pressure can be used to apply Preferal. This increased pressure will be sufficient to push the particles through the spray system, and will not harm the blastospores in the process. It is suggested to increase spray rate by at least 50% and up to double original pressure. For example, if standard spray rate is 40 PSI, it is suggest that the spray rate should be increased to a minimum of 60 PSI and maximum of 80 PSI. Make sure to note pressurized spray equipment restraints.

For more information contact your SePRO Technical Specialist or call **1-800-419-7779**.

