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READING LABELS: HOW TO RECOGNIZE A QUALITY PRODUCT

Common Tricks Used on Product Labels



Since Plant Health Care, Inc. introduced a comprehensive line of commercial mycorrhizal fungi inoculants for the landscape industry in 1995, a lot of competing companies have entered the market with knock-off versions of PHC products. With several choices available, it is important to recognize quality. The best test of quality is objective testing and experience. However, there are several reliable clues that can be gleaned from the label. A few of the most common labeling tricks are discussed here.

Does the label provide an Expiration Date?



Look for the expiration date on live biological products. Only quality products have them.

Live ingredients such as mycorrhizal fungi and rhizosphere bacteria do not last forever. Although the longest-lived propagule is the spore, even spores will eventually die in a few years. Therefore, inoculant products need to show an expiration date on the label so the customer can be sure that the product he buys comes from live inventory.

If the brand of mycorrhizal fungi or bacterial products that you purchase does not show an expiration date on the label, then the manufacturer is not concerned about the freshness of his product, or he does not want to upset his distributors, who would not be happy to be stuck with old product that cannot be sold. So the customer is kept in the dark by dodging the matter of expiration dates. Similarly, short-lived propagules are often sold to formulators who are clueless about the very idea of expiration dates.

Many formulators use root fragment propagules as their mycorrhizal fungi inoculant. It is no wonder that they refuse to place an expiration date on their label. While root fragments are an excellent inoculant when fresh, they have a rather short shelf life.

Does the label list the spore or propagule count by species?



Don't be satisfied with total counts. Demand to know counts for each species of microbe.

It is important for the customer to know how many spores or other propagules he is buying for his money. Following PHC's lead, most companies now provide some claim regarding propagule counts. However, few other than PHC list the count for each species. Instead, most companies give a total count, showing the number of all species per unit weight or volume. Then they list the names (but not the count) of each species. This is a clever trick used to hide the fact that, while they may list six, seven, or nine different species, the bulk of the propagules are comprised of only two or three species, while the rest of the species listed are represented with tiny amounts.

If the product does not show the number of spores or other propagules per each species, then you can reliably assume that this information is intentionally withheld because all the species are not equally represented. Various companies use this trick to "pad" their label to make it appear as though it is loaded with lots of species of mycorrhizal fungi or rhizosphere bacteria. Some

companies do not even bother to identify the species of microbes involved. All these things provide good clues about the professionalism of the company labeling the product.



Does the label overstate active ingredients and ignore inert ingredients?

Many ingredients contain significant amounts of additives or inactive components that are ignored on the label. Look for clues among inert ingredients.

This is a very common trick used on product labels. For simplicity, an example will be used to illustrate this point. Valuable ingredients like humic acids are added to products in the form of humates. This is fine and quite practical. However, the humate ingredient is not 100% humic acids. Instead, humates typically vary from 65% to 79% humic acid content for the soluble extracts, and about 63 to 68% for the insoluble granulars. However, the less scrupulous brand will claim the entire amount of the humate ingredient as though it were all humic acids. This is a trick that is used to make it appear that their product contains as much or more active ingredient than their competition, when they actually contain less. Here is an example:

Product A claims to contain 15% humic acids. However, an examination of the formula shows that 15% of the recipe is granular Humate. Granular humate has a 65% humic acid content. So only 65% of the Humate additive is actually comprised of humic acids. To be correct, the label should claim that Product A contains $15\% \times 0.65 = 9.75\%$ humic acids. However, they do not do this. Instead, they prefer to say that they put in 15% Humates, so their product contains 15% humic acids. This is false, and represents a fraudulent claim.



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The humic acid example is perhaps the most common fraudulent claim appearing on labels. No commercial humate ingredients contain more than 80% humic acids. The vast majority hover around 65%. Yet most competitor labels claim the full amount of humates when reporting humic acids. Here is how you can tell. If the label claims humic acids, it should claim the rest of the Humates as inert ingredient. There are two ways to do this. One involves a subguarantee:

Proper Labeling Method I

Humates (derived from Leonardite).....15%
9.75% Humic acids

The other method involves stating the non-humic acid content among the inert ingredients:

Proper Labeling Method II

Humic acids.....9.75%

Inert Ingredients
Non-humic acid components of Leonardite.....5.25%




If the label makes no attempt to accommodate the fact that humates contain significant amounts of inert ingredients that are not humic acids, then chances are very good that the humic acid claim is overstated.

The above discussion also applies to other ingredients. For example:

Commercially available soluble seaweed extracts typically contain only about 68% seaweed extract. The remainder is comprised of a carrier and an anti-caking agent. These should appear somewhere on the label as inert ingredients. If not, the brand is conveniently claiming that their seaweed ingredient contains no inert components. This is not so, but the claim makes their product appear to be equivalent or superior to PHC, because they count the inert components in their label guarantee.

Does the brand have nothing more to offer than a cheaper price?

The oldest tactic in the book is to copy the formulations of the industry leader, and then offer a similar product at a cheaper price. This tactic becomes a trick when the active ingredients being used are of lower quality, and when the percentages of ingredients are misrepresented in the ways described above. One way to recognize this “trick” is to look at the marketing pitch. If the salesman hands you an ingredient-by-ingredient product comparison showing that his product is better and cheaper, you need to immediately check the label. See if the label:

- Has an expiration date 
- Shows propagules count for each species separately 
- Shows percentages of inert ingredients 

There is a reason why his product is cheaper...a very bad reason. If the label does not have the above three items, then you can be reasonably assured that the product is misrepresented, and that you have no protection against purchasing expired goods.

