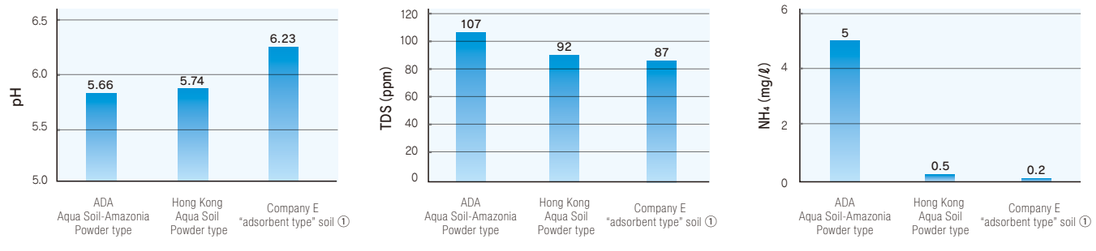
Advantages of Aqua Soil-Amazonia Observed by Comparison of Ingredients

As anyone who has experience with Aqua Soil-Amazonia knows, ADA's Aqua Soil-Amazonia is a substrate soil that helps aquatic plants grow overwhelmingly faster than other companies' soil products. This soil also has a reputation as a substrate material ideal for breeding bee shrimps. The secret of these advantages of Aqua Soil-Amazonia is in its main ingredient "black soil".

Unlike black soil popularly used in Japan which derives from volcanic ash, the black soil used for Aqua Soil-Amazonia contains outstandingly rich plant-derived humus. The soil sold in the Japanese market is mainly made of volcanic ash-based black soil and does not contain as much nutritive humus as Aqua Soil-Amazonia. The other day, a soil that falsely used the name of Aqua soil was found in Hong Kong (hereinafter called "Hong Kong Aqua Soil"). This was a soil made of volcanic ash-based black soil and categorized as what is called, "adsorbent type soil", the characteristics of which were totally different from those of Aqua Soil-Amazonia. Based on the fact that the package of the Hong Kong Aqua Soil stated that it was made in Japan, it was assumed that it came from the same place as one of the substrate soil products available in Japan. An experiment for extracting humic acid was performed to clarify the differences between soils. Humic acid is a representative substance contained in humus and extractable in alkaline solution. The more the extracted humic acid (i.e., brown coloring), the more humus is contained in the soil. The result showed that Aqua Soil-Amazonia contained an obviously and overwhelmingly larger amount of humus compared to other types of soil. In addition, humic acid was hardly extracted from some of other companies' soil products made of volcanic ash-based black soil. A comparison of water quality was conducted for three typical types of soil and the result supported the fact that Aqua Soil-Amazonia contains the largest amount of nutrients. We might think that any black soils produced in Japan are more or less the same. However, it should be understood that humic black soil, the main ingredient of Aqua Soil-Amazonia, is greatly different from other volcanic ash-based soil in terms of nature. It is assumed that this difference in soil strongly influences the growth of aquatic plants and Red Bee Shrimp.



■Comparison of soil pH
ADA's Aqua Soil Amazonia and Hong Kong Aqua Soil had almost the same pH levels. Company E's "adsorbent type" soil ① containing less amount of humus showed the highest pH value.

■Comparison of TDS
TDS indicates the amount of dissolved solids contained in the soil. ADA's Aqua Soil-Amazonia showed the highest level of TDS while company E's "adsorbent type" soil ① showed the lowest level.

■Comparison of nitrogen
A comparison of nitrogen was performed by the amount of ammonium (NH_4). ADA's Aqua Soil-Amazonia contained a significantly higher level of nitrogen, which is a nutrient for aquatic plants, as compared with other types of soil.

Sample 01
ADA
Aqua Soil-Amazonia
Powder type

Sample 02
Hong Kong
Aqua Soil
Powder type

Sample 03
Company A soil
for nutrients ①

Sample 04
Company A soil
for nutrients ②

Sample 05
Company B
"adsorbent type" soil

Sample 06
Company C
"adsorbent type" soil

Sample 07
Company D
"adsorbent type" soil

Sample 08
Company E
"adsorbent type" soil ①

Sample 09
Company E
"adsorbent type" soil ②

Sample 10
Company F
"adsorbent type" soil

Sample 11
Company G soil
for nutrients

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