Saving Borneo One Farm At a Time with BioFertilizer

My name is Ugak Sanggau. I am Dayak farmer from Sarawak, Malaysia. I am also the founder of SOFertilizer under Sofield Agrobio Resources Sdn Bhd (SARSB).

SARSB is a Sarawak based producer of bio fertilizer which has been proven to be very efficient in maintaining and even increase the farm harvests of various crops from palm oil, black pepper, durian, citrus, banana and paddy too.

The problem I am solving with bio fertilizer is the well-known environmental impact of synthetic chemical fertilizers and pesticide on land and water. As European countries look towards organic farming and regenerative agriculture, for farmers in Sarawak, actually most of Malaysia and Indonesia, the main problem has always been the cost of fertilizers. Even in these days of high prices for Crude Palm Oil, the cost of fertilizers has also risen up along with weedicide too. This will reducing the margin earning from each product from the farmers.

Five years agro, I was faced with a different problem. Prices for CPO was very low. This caused many farmers to fertilize their oil palm farms with less inputs and therefore, their harvest volumes decreased. Some of the farmers tried to maintain their harvests by opening up new farming areas.

This seemed like a double negative for the environment as existing farmlands are underproducing. This is against the growing trend for sustainable agriculture where farmers should look to maximise harvests per acre instead of creating more underproducing farmlands. By using bio fertilizer (SOFertilizer), they can obtained more or less 0.7-1.2 mt/acre/month.

As an oil palm plantation expert with two decades of managing industrial plantations, I knew that from my own small farms, increasing harvest while reducing costs was the key. This is when I applied the knowledge from my college education in Master in Plantation Management (UPM) and experimented with various types of organic fertilizers. The early results from organic fertilizers were not so good as harvest continued to be low or even decrease. Further on the negative side, as it required large volume of organic matters to produce and take some time for the nutrient to be absorbed required by the plants.

The magic happened when I started to cultivate bio fertilizer instead of simply organic fertilizer. The difference is that organic fertilizers, which can be made simply by soaking leaves etc in water, is not strong enough to provide soil bio-nutrients has have been lost through years of chemical synthetic fertilizer inputs.

Adding enzymes or microbes to the mix, has made all the difference. Within one month applications, the palm fronds perked up and turned a dark green. Within six months, the number of fruit bunches increased by 20% and high female sex ratio against male flowers which leads to more formation of fruit bunches per tree and the palms becoming more healthy thus resistance to the diseases especially foot rot and this was shown by more roots sprouting out from the palms base after 2 months of bio fertilizer application, see picture right;

The bio fertilizer I produce, SOFertilizer is now widely used by oil palm farmers in Sarawak. An official endorsement from official farmers program of Sarawak will help to spread its use in more crops.

My work has featured in a CPOPC program for oil palm smallholders and other than that;

1. Acknowledge by Malaysian Agricultural Research and Development Institute (MARDI)

2. Get attention from Ministry of Industrial Development of Sarawak (MINTRED)

3. We are in the process of auditing for new standard, MS 2751:2022 , Malaysian Standard Palm Oil (MSPO) Chain of Custody of Oil Palm Biomass in order to be certified

4. We also been invited by Sarawak Agriculture Department for convey the message of the importance and advantage of SOFertilizer through local radio channel broadcasting

My innovation should receive a place at the Innovation Fair at the Sustainable Palm Oil Dialogue because it shows how smallholders can reduce their environmental impact in the palm oil industry.

-THANK YOU-