Artemis & Angel Co. Ltd.
99/296 President Park, Sukhumvit 24, Klongtoey,
Bangkok 10110, Thailand
Tel.: (President) +66-86-329-6038; (Sales - English): +66-99-337-7866
E-mail: (Sales) artemisandangelcoltd@gmail.com **Website:** www.artemisthai.com

The Benefits of the Bio-fertilisers, Bio-Plant and Pro-Plant, for African Countries During Climate Change

1. Summary

- The bio-fertilizers, together with regenerative organic farming techniques, will enable your country to increase the yield and quality of all crops; ensure food security; mitigate the worsening effects of climate change on agriculture and the population; phase out chemical food production; and make your country a major producer and exporter of 100% organic food. This could lead to the creation of a 100% organic food processing industry.
- Regenerative organic, chemical-free food production is the direction all countries have to take for the sake of food security as the climate changes.

2. Efficacy of the Bio-fertilisers

- Bio-Plant and Pro-Plant are very concentrated, 100% organic, microbial, liquid bio-fertilisers made with advanced bio-technology techniques. They are free of toxins and pathogens, and are safe to use.
- Their efficacy has been demonstrated with a wide variety of field and plantation crops many times over the years. The company website shows evidence of field test results in various countries, including in Africa, as well as presentations about the nature and benefits of the bio-fertilisers. For example, Click here.

3a. General Benefits

1. ***Soil Transformation & Restoration of the Soil's Microbial Life:*** By means of the bio-fertilisers and regenerative, organic farming techniques, poor and compacted soil will be changed into a crumbly, fertile condition rich in microbial beneficial insect life. Crop disease problems cannot be solved until the Soil Food Web and the soil's fertility have been restored. Fertile soil with an abundance of microbial life sequesters more carbon; increases agricultural productivity and quality; and helps plants tolerate hot temperatures and drought conditions brought about by climate change.
2. ***Food Security:*** The bio-fertilisers will enable your country to achieve its food security goals because they are microbial and because we will implement a process of teaching farmers how to restore their soil with the bio-fertilisers and regenerative farming techniques.
3. ***Crop Yield Increase:*** Because they restore the soil's food web and fertility, the bio-fertilisers will increase crop production beyond what chemical agriculture can produce.
4. ***Reduction of Crop Production Costs:*** The use of these organic bio-fertilisers will reduce crop production costs. Moreover, agrochemical sprays are not needed.
5. ***The End of Chemical Farming:*** The bio-fertilisers will eradicate chemical agriculture from your country. This will help to protect ecosystems and the water supply.
6. ***Removal of Harmful Chemicals:*** Toxic agrochemicals in the soil can be made harmless through microbial bioremediation by means of Bio-Plant. Bio-Plant can also be used to transform the polluted soil in mining areas into soil that can be used for farming.

7. ***Mitigation of Effects of Climate Change****:* Using regenerative, 100% organic, climate-smart practices when farming with the bio-fertilisers will mitigate the increasing effects of climate change. These effects include less soil fertility, pest and disease problems, soil moisture evaporation, and lower crop yields and crop quality.
8. ***Protection of Food Production System:*** Regenerative, 100% organic farming helps to protect the food system. The current pandemic, climate change, the increasing recurrence of droughts, floods, forest fires, and new pests and diseases are a constant reminder that the food system is under threat and must become more sustainable and resilient. Regenerative, microbial, organic farming provides the required sustainability and resilience by ensuring that food production will continue in spite of the threats.
9. ***Water Conservation:*** Regenerative, 100% organic farming techniques and the improvement of the soil's microbial life will help farmers to conserve water. This will become very important as droughts increase and the effects of climate change worsen. Regenerative, organic farming techniques make the soil cooler; improve soil structure so that moisture can be held and made accessible; and also increase fungi networks that supply moisture to the roots.
10. ***Ecosystem Protection:*** Unlike 100% organic farming, chemical agriculture damages the environment and pollutes underground water and waterways. This is especially important nowadays because consumers are increasingly no longer supporting products produced in countries that do not protect the land, forests, and ecosystems.
11. ***Deforestation Reduction:*** Deforestation disrupts local weather patterns and causes carbon emissions that contribute to global climate change. As weather patterns change and higher temperatures and droughts become more common, farmers are not able to grow as much, and so they expand into new areas. Regenerative, 100% organic farming can reduce the practice of deforestation to grow crops.
12. ***Regenerating Pasture Land:*** Degraded pasture land can be restored using Bio-Plant with regenerative pasture techniques, and this will improve the growth, nourishment, and health of livestock.
13. ***Desertification:*** The bio-fertilisers can reverse the desertification of farm land through regenerative agriculture.

3b. Economic Benefits

1. ***Global Demand for Healthy Food Products:*** Covid-19 has made consumers more health-conscious and want to eat healthy, chemical-free food products. The bio-fertilisers will enable your country to produce chemical-free, 100% organic food for the growing global, 100% organic consumer market. This is a golden opportunity to increase exports.
2. ***100% Organic Food Exports:*** By restoring the soil biology and by farming organically, each community will produce a large surplus of various organic crops that can be marketed in towns around the country and exported as "100% Organic" or "Chemical-Free". There is a growing demand in the European Union (EU), for example, for 100% organic produce. Indeed, the EU Commission in Brussels has given each member country a goal of making 25% of food production 100% organic by 2030 to start with. In short, it will become harder to export chemically grown food over coming years. The bio-fertilisers produce 100% organic and chemical-free food products for which there is unlimited demand.
3. ***Reduction in Chemical Residues in Food:*** There will be no problem with chemical residue levels in the food products. This will ensure that western and African markets will not reject exported food produce owing to chemical content.

4. ***Greenhouse Operations***: The bio-fertilisers make it possible for 100% organic farming greenhouse operations to be developed. The operations can produce exportable, sometimes niche, 100% organic crops, and create new industries, such as 100% organic floriculture to compete with the chemically grown flowers in Rwanda and Kenya, which dominate the European Union's flower market. Profitable hydroponically grown products can also be grown in the greenhouses.
5. ***Youth Employment:*** Agriculture will provide young people with a profitable way of making a living from 100% organic farming. This will enable many unemployed young people to leave the capital and to return to the rural areas.
6. ***Poverty Alleviation:*** The organic crop produce of your country will be in demand in the country as well as abroad. This will mean that the farmers can be guaranteed a market and good prices for their crops and that they will become wealthier.

4. Phasing Out Chemical Farming

- The bio-fertilisers will enable chemical farmers to change to bio-chemical farming, if they prefer a phased approach, and thereby halve in Year 1 the amount of chemical fertiliser they use while still increasing their production, and reducing their costs significantly.
- They can phase out the remaining 50% of their chemical fertiliser in Years 2 and 3 until they will be farming 100% organically with higher yields, and superior crop quality.

My warmest regards,

Peter McAlpine
Chief Marketing Officer

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& Angel Co.,Ltd.
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