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Post Covid-19 Agriculture: The Way Forward

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The effects of the Corona pandemic on the world economy had been disastrous, the estimated global decline in GDP being 3.5 trillion US dollars. Sri Lanka will find it quite difficult to recover from the adverse effects of Covid-19 while spending to control the epidemic and providing relief to the poor people. Strengthening and expanding health services supported by the participation of security forces needs immediate attention. Resumption of industrial activities that generate wealth and employment together with food production has to receive high priority to prevent social unrest. Service sectors such as banking and finance, public transport, water supply, electricity, communications, garbage removal, waste management etc have to continue without interruption. With most of the income generating activities decreasing together with a significant decline in foreign exchange earnings, the government is facing the dilemma of maintaining its essential expenses with the rapidly dwindling incomes. Cutting down on all non-essential imports and improving production is imperative. Moreover, with the disastrous global impacts of the Covid pandemic securing requirements from overseas even for essential items is an arduous task. Therefore, the way forward is to move towards self-reliant and self-sufficiency. The National Institute of Fundamental Studies (NIFS) is ready to offer its products and services for the post Covid economic recovery in whatever manner possible. Among the different ongoing projects at the NIFS, the Microbial Biotechnology Unit can offer some solutions for our dependency on imported chemical fertilizers for food production. Although the international fertilizer prices have undergone a temporary decline due to Covid-19, the World Bank has predicted them to increase within a few months. Moreover, the decline in the Sri Lankan rupee value has negated the advantage of the international price decline. This presentation will cover research and development studies of the NIFS that led to the production of two major types of biofertilizers as viable alternatives for imported chemical fertilizers. These biofertilizers produced by the NIFS could replace chemical fertilizers significantly very often with increases in crop yields. Biofertilizers are cheap, easy to transport, store and less costly to apply. Biofertilizer use will reduce environmental pollution and the replacement of chemical fertilizers could be a real blessing particularly to the farming community, which is the backbone of food production. Minimizing the application of synthetic N-fertilizers will have positive impacts on overall management and contribute to the achievement of targets set out in the 'UNEP Colombo Declaration' of 2019.

Keywords: *Bio-Fertilizers, Covid Impact, Eco-Friendly Agriculture, Pollution Reduction, Self Reliant Agriculture*