



Sufficiency Economy Philosophy to Sustainable Development Goals (SEP to SDGs)
การขับเคลื่อนสืบสานศาสตร์พระราชา ปรัชญาของเศรษฐกิจพอเพียงสู่เป้าหมายความยั่งยืนโลก

Enriching Sandy Soil by “Covering” to Produce Excellent Yield



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"Soil" is a natural object formed from the weathering of rocks and minerals mixed with organic matter produced by the decomposition of plant and animal remains. Good soil feels smooth and crumbly, not sticky or hard, and supports growth in plants, the source of four basic needs essential for human life; namely food, clothing, shelter and medicine. Therefore, we can say that soil provides life.

When most “farmers” look at the soil, they see fertility and plant growth. From the moment roots stabilize plants, the soil provides nutrients essential for their growth, stores their water, retains their moisture and supplies the air they breathe. Unfortunately, some farmers overexploit the soil and its minerals with their monoculture farming over an extended time period and use chemicals such as chemical fertilizers and pesticides, without any care for soil condition, causing soil quality deterioration, lack of minerals in the soil and lack of ecosystems.

Those monocultural farmers hope to get tons of money from a single crop. And the fact is they initially do. But later on, the more they farm, the more they pay for tractors, fertilizers, weed killers and insecticides. After deducting costs, there is not much left (not to mention bad years when costs are even higher than income) but they keep on planting, not knowing any better, and curse the angels and blame everything (fate, soil, sky and weather) when the yield is unprofitable. And one day all that changed when one of those farmers had the opportunity to participate in a Training Course on Natural Farming Development towards Sufficiency Economy System at Thai Organic Farming Center, Nareang Church, Si That District, Udon Thani Province, where “a poor man’s concepts” were applied to “topsoil conservation” also known as “soil covering.”





One important part of growing plants is to analyze the soil condition to pinpoint and overcome any problem. In the case of Miss Prathumporn, the soil in her plots is sandy and lacking of minerals due to monoculture farming over an extended period of time. Thus, it is necessary to restore balance by “covering the soil.”

Soil covering steps are tilling topsoil in the desired area to loosen it up before covering it, about 50 centimeters thick, with rice straw, weed and dry leaves. The covered soil will get warm and moist: a perfect habitat for microorganisms, earthworms, millipedes and a plethora of insects whose tunneling activities help smoothen the soil. Next, spreading organic fertilizer, for example cow and buffalo dung, evenly on top of the rice straw. Finally, mixing 1 liter of bio-fermented liquid in 50 liters of water before spraying it on organic fertilizer on top of the rice straw to accelerate the decomposition of all ingredients and add nutrients to the soil. After 30 days, the soil condition in the covered area will change significantly to be more fertile, moist, balanced and replete with minerals essential for plant growth.

This is the meaning of “Feed the Soil, Feed the Plants.” With fertile soil, plants thrive and life on earth flourishes. In this respect, let’s “cover the soil” to create balanced ecosystem and sustainable food security.

Article by Education and Community Development Center Yala

