

## Soil Maintenance



In plots of land belonging to Mr. Abdul-Mujeeb Bhaiji, a successful Household Lab Model of the Development Project of Model Area for Quality of Life Improvement through the New Theory Applied in “Kok Nong Na Model” for Fiscal Year 2020, located in Ban Khuan Tho, Pae-ra Sub-district, Tha Phae District, Satun Province, the soil is slightly acidic (pH 6.5) and the key intervention used to improve its quality is the application of manure compost and dolomite (a soil nourishing formula), at a ratio of 500 kilograms per 1 rai of land, to reduce soil acidity and mitigate soil degradation.

After the initial soil quality improvement, the next step is to create green manure by plowing over flowering “sunn hemp” mixed with manual compost.



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

Soil preparation is an important aspect that cannot be ignored because “feeding the soil is feeding the plants.”

Steps for the preparation of 1 rai of land according to Kok Nong Na Model are as follows:

1. Making organic compost
2. Raising animals such as buffalo, cow, duck and sheep and harvesting their manure to make organic compost
3. Storing animal manure to make organic compost
4. Raising farm ridge to prevent dangerous chemicals from contaminated water sources







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

Important aspects of soil maintenance are the ban of chemicals use in Kok Nong Na Model, the promotion of regular use of manure compost and the soil covering with weed, banana scraps, rice straw and grass clippings to retain moisture in the topsoil and create a perfect habitat for microorganisms beneficial for plant growth.

It is also possible to maintain the soil in rice paddies by either plowing over rice stubble after harvest or planting sunn hemp or corn before the next rice-planting season to add nutrients to the soil. Moreover, the use of cow dung and buffalo dung in rice paddies is recommended. Finally, the use of chemical herbicide is strictly prohibited in the area because it will kill beneficial microorganisms in the soil.



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



For newly excavated land in Kok Nong Na area, it is highly recommended:

- To improve the soil quality before planting any economic crop
- To use dolomite once a year (particularly for the first 3 years)
- To have the soil tested for acidity and basicity
- To retain moisture in the soil by growing vetiver grass, banana trees and other ground cover plants
- To cover the soil according to natural farming principles

Article by Education and Community Development Center Yala