

11. Green Fertilizers

Green fertilizer is *Fundamental #5*. It feeds the next crop efficiently. As you plow crop residue into the soil it will eventually become humus and fertilizer for following crops. It is a form of composting, in which materials do not need to be transported to a mixing/composting site. You could call it field composting.

Economical on a large-scale, green fertilizers will build up the organic matter in the soil. Many of the professional farmers grow a crop to flowering and plow it under before fruiting. This will maximize the biomass and minimize nutrient and energy loss.

A Natural Farming System for Sustainable Agriculture in the Tropics

In the first year of renovating cogon grassland we use lots of crop residue and green fertilizers, along with mulching. Our popular fertilizer crops are sorghum, hog corn, mungo bean and peanuts. All of our cover crops become green fertilizers later also.



Mustards and pechay are effective as green fertilizers and they can also clean the soil and prevent or eliminate certain diseases.

I know a farmer who grows mungo bean for 30 days, just as a green fertilizer. He plows it under and then follows it with rice. He uses no other fertilizer. His neighbors are rice farmers also. They grow 2 crops of rice, but my friend grows market vegetables in rotation with other non-rice staples after his first crop of rice. He yields 80% more rice in one crop than his neighbors, and then he uses the rest of his land for high value crops. He comes out even with rice because he has one planting instead of two, and one harvest, not two like his neighbors. He gets 180% the harvest for half the labor, and then cleans

up with his high value crops while his competition is waiting for the rice to finish. Green fertilizers in crop rotation can bring better profits compared to conventional chemical farming.

Comparison of Green Fertilizers to Conventional Method

One Hectare	Chemical Fertilizer	Green Fertilizer
Plantings	2 Rice	1 Rice
Fertilizer	2 Applications	1 planting
Pesticide	2 Applications	NONE
Harvest	6 tons	5 tons
Yield- tons/ hectare/harvest	3 ton/hectare	5 ton/hectare
Labor	40 man days	18 man days
Other crops	NONE	3 months of market crops and cereals in rotation

Green fertilizers and natural farming techniques lower labor costs while lowering input expenses.



Kudzo is another favorite legume, usually a weed used for plowing under or composting. Our goats eat this hardy vine and keep it under control.



Mulch is piled on deep to keep moisture in the soil and minimize weeds.