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 To: CannabisEIR <CannabisEIR@santacruzcounty.us>
 Date: 10/30/2017 4:10:54 PM
 Subject: Dr. Elaine Ingham's soil foodweb

To: Matt Johnston
 Planning Dept.
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With the sanctity of the monterey bay and surrounding wildlife habitats in mind, I ask if you would please contact Dr. Elaine Ingham PHD in soil microbiology if you have not already done so.

She will enable the best Environmental Impact Report for this oncoming "gold rush" of large scale cannabis grows as well as agriculture in general. She also can enable farmers to ecologically increase yields and overall profits.

Dr. Elaine Ingham PHD
 Soil Microbiologist/Educator
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her coauthor on several books for possibly faster or more current contact information for Dr. Ingham: Dr. Carole Ann Rollins: 415-448-5477

Please encourage farmers (perhaps with subsidies and or tax breaks and or grants to finance their training with Dr. Ingham and any transitions to her methods) to use Dr. Ingham's protocol as applied to ROLS (recycled organic living soil) which is also a No Till Organic method for container greenhouse grows as well as in-ground indoor and outdoor agriculture. The main difference between her protocol and other organic techniques is that her methods utilize far more sustainable ingredients being mainly properly made composts: thermal/aerated compost and or earth worm cast with inputs largely from on site generated plant materials.

When her methods are applied to soil or coir, they are vastly more water conservative than conventional chemically based agriculture and perhaps even more water conservative than typical organic operations because one needs only to maintain enough moisture for microlife in the soil to carry on the nutrient cycling from plant to soil life to plant. No salts are generated therefore no need to create runoff so any nutritive elements stay right where the crops are and no where else. In addition, her technique creates outputs of proven high yielding high quality crops.

In addition to excellent water conservation, her methods also preserve and improve soil, require zero fertilizer inputs, and potentially generate zero waste: zero water runoff, zero fertilizer runoff, zero nitrogenous or other undesirable gasses. Also, Zero necessity for Pesticides/herbicides of any kind including biological pesticides/herbicides. These are unnecessary because the plants are simply healthy and thus far more resistant to pathogens and pests because the latter are crowded out or consumed by the beneficial microlife that will be introduced and or encouraged on leaves, stems, roots and in the soil. Beneficial bacteria, fungi, protozoa, nematodes, microarthropods and eventually the larger life of the soil food web are all encouraged for high yielding crops.

Her methods sink and retain Nitrogen in all its forms in the soil and crops, sink CO2 (think \$ for farmers and tax collection from the carbon cap and trade market), sink methane, and create virtual biological perpetual motion machines in that they create soilfood webs that just get better and better at producing rather than the usual soil depletion, plant degradation, and pollution of typical salt based agricultural methods and her methods use far more sustainable ingredients than typical organic methods and one never needs to replace the soil; it just gets more and more productive just as the soil of an old growth forest produces more and more biomass such as our remnant old growth redwood forests.

Her ingredients are the most sustainable around for they rely heavily on thermal/aerated composts generated on site as well as worm composts; Farmers would not need to import minerals for all the minerals needed by the crop plants are already in the soil and organic materials and made plant available thanks to the beneficial microlife in the soil all in a mere 3 seconds--very fast food. The soil she creates is really a superorganism made up of billions of species of beneficial microlife just as the forest floor of an old growth redwood forest teams with more species than a tropical rainforest.

One additional suggestion:

1) let cannabis be grown out in the sun for the cheapest power consumption; just make sure farmers use reptile friendly physical barriers if necessary to thwart unwanted deer/bird/gopher/rat/mouse invasions though Elaine might encourage all the aforementioned "ag pests" as part of the soilfoodweb.

This is an opportunity to be shining stars in ecological agriculture on a very large scale. Growing cannabis could actually be good for Monterey Bay by contributing in a big way to the reversal of global warming no less. Dr. Ingham has been quoted as saying "if all the farmers in Australia alone adopted the soil food web approach to farming, we could reverse global warming in 3 years."

Talk about a stellar EIR! We could grow cannabis AND save the whales!

Thankyou for your attention to this matter.

Thankyou in advance for implementing her protocols.

Sincerely,

member of the biosphere