



BIOLOGICAL COROLLARY OF EINSTEIN'S EQUATION

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ABSTRACT :

Einstein's equation of general relativity has been said to be worlds truest facts, however the biological outcome of the same is being forgotten. The result of which is leading resource depletion, and many other biological hazards. In the present study we have clearly depicted the step wise energy distribution in Agriculture ecosystem. The adoption of which will certainly lead to sustainable development of human along with other life forms.

Keywords: Biological outcome, resource depletion, biological hazards, sustainable development.

1. INTRODUCTION

Sun's radiant energy is assimilated in earth by photosynthesis. There are various measures suggested to access radiant energy of sun along with its importance being non-polluting(Ramchandra T V 2007). Einsteins equation is very similar to Maxwells equation of energy in electromagnetic field. The Einstein's equation states relation between mass and energy as
 $E=mc^2$

This is a consequence of photosynthesis reaction that happens in plants as denoted below(Albert Szent Gyorgyi 1937)



Thus sun's radiant is assimilated in earth by photosynthesis and is used up at various strata of earth. If used in proper direction will only lead to a healthy ecosystem as seen in following graph. Because ecosystem is getting damaged as a result of stress imparted by human activities and only a healthy ecosystem can provide the services that humans and the natural environment requires (Yonglong Lu,et. al. 2015).

The stress given to ecosystem on grass level includes introduction of urea in agricultural ecosystem, addiction of which has exceeded up to 90% in farming of total produce from industries (Ullmann's Encyclopedia of Industrial Chemistry, 2010). However there are many other alternatives available without expending significant amount of money. Ancient alternatives to the ongoing practices have been pointed out in the present study under which sun's radiant energy can be utilised for optimal working of a healthy ecosystem, which might appear like the figure 1 given below.

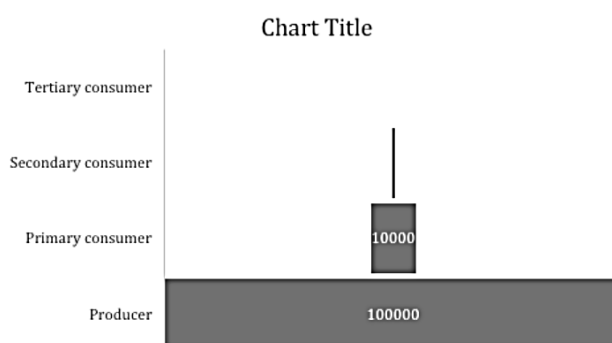


Figure1: Pyramid of numbers showing a structure of healthy ecosystem structure.

Material and method:

Flammability is encountered as ecology and evolutionary driver by Pausas J G et. al. 2017; however its effects only up to plant level have only been considered. In the present study we have encountered the flammability as the indicator of the possessed potential energy by every niche in the ecosystem and charcoal as the zero potent compound as it bears no flaming capacity at all.

To cross check the flammability every product was weighed to 5grams each thrice and burnt separately in muffle furnace. The flammable mass of each product was calculated using formula:
 Flammable matter= amount taken-unburnt part.

Result and discussion:

We used biological end products of every tropic level as mentioned in the table 1. Where the plant litter is by product of autotrophs, unused by plants however can act as fodder for animals like cows. Cow dung is the waste material and byproduct of cows however acts as a good source of methane which can be utilised as alternative for Liquified Petroleum Gas (L.P.G.). After extraction of L.P.G. the biogas slurry becomes potentially reduced however has not turned unenergetic; and now it acts as a good source of food for earthworms from which a good manure of vermicompost is obtained. This manure can be supplied to plants and it act as an excellent fertiliser and enhances plant growth.

Number and name	Amount taken (In grams)	Unburnt mass (In grams)	Flammable matter= amount taken-unburnt part
Plant litter	5	2.45	2.55
Cow dung	5	2.23	2.77
Biogas slurry	5	2.30	2.70
Vermicompost	5	3.37	1.63

Discussion:

The present study prefers use of organic farming technique over usage of chemicals as agricultural practices adopted by farmers to burn plant litter and getting soil nutrition through artificial fertilisers have been the main causes of insufficient cost cover of crops (Yilmaz I. et. al. 2005, Kalyankar V B et. al. 2017).

The results clearly depict that there is decreasing flammability with increasing hirarchical level of byproduct’s and each of them find absolute application in the next (Image1)

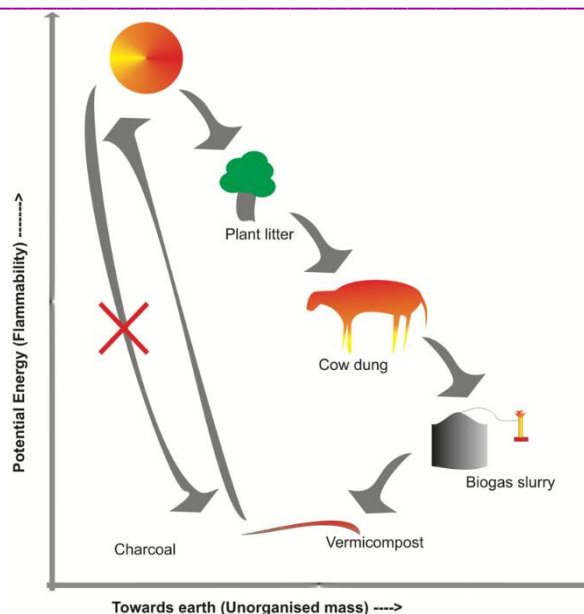


Image1: showing stepwise utilisation of sun's radiant energy in earth's agricultural ecosystem.

The present study disproves a famous statement by Leonardo da Vinci which describes water as the "driving force of nature"; however it proves that sun's radiant energy is the "driving force of Mother Earth and life forms on it."

The present study disproves that Solar devices are the only source of assimilating sun's radiant energy and are the only renewable sources of energy, however the photosynthesis has been the same from time immortal (Origin of aerobic life in Phanerozoic eon)(Margulis L. 1981).

The present protocol is the only alternative to make first law of thermodynamics applicable globally; which states "Energy can neither be created nor be destroyed but can be changed from one form to another".

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