ON NEW MEASURES OF SUSTAINABILITY

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The dual meaning of sustainability, in the context of the study envisaged under the paper, implies persistence and the capacity of something to continue for a long time on the one hand and on the other hand it implies the process of not damaging or degrading the natural resources. The unification of the above two concepts will imply the retention of crop production at micro level (viz., a plot) over a long period of time (say, about twenty years) without making any damage to the environment and if that can be achieved, the system may be deemed as sustainable (the natural resources including management practices in case of long term experiments).. Under long term experiments different nutrient management practices {developed by taking combinations of organic and inorganic nutrients in different proportions) are used and such practices are evaluated in terms of their sustainability status. The existing measures of sustainability (to assess different nutrient management practices) are only a few in number and they have their own limitations as well. In this paper, new statistical measures to assess the sustainability of such practices have been proposed along with a comparative appraisal of the existing methods. As an illustration, these measures have been employed on long term experimental data emanated from AICRP (Kalyani, West Bengal, center) under Government of India to evaluate the performance (sustainability status) of different nutrient management practices.

