

Summer Field School [Online] on MOUNTAIN ECOSYSTEMS AND RESOURCE MANAGEMENT Ivano-Frankivsk Region, Ukraine :: 19-28 September, 2021

DELEGATE PARTICIPANT'S PROFILE



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Hig	thest Education	on
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Dear colleagues! I am grateful to share my profile and present Personal Statement myself as the delegate participant for the forthcoming Summer School on 'Mountain Ecosystems and Resource Management'. Presently, I am a Research Scholar in the School of Natural Resource Management in College of Post Graduate Studies in Agricultural Sciences, Umiam, Central Agricultural University-Imphal doing my research under the title "Developing soil testing protocol for potentially available phosphorus in acidic soils under organic production system". In the year 2019, I obtained my graduation degree in Agriculture from Assam Agricultural University, Jorhat, Assam. I acted as Joint Organizing Secretary in the International Web Conference on "Perspective on Agricultural and Applied Sciences in COVID-19 Scenario (PAAS- 2020)" organized by Agricultural & Environmental Technology Development Society (AETDS). I published six book chapters related to natural resource management and participated in many national and international conferences and won the best oral presentation as well as best poster presentation awards.

Paper/Presentation Title (Unpublished Research or Review or Field Work) Developing Ready-to-Use Soil Testing Protocol for Potentially Available Phosphorus Dedicated to Organic Farming



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Keywords	Organic farming; Phosphorus; Organic extractants; Soil testing protocol
Abstract (100-300 words) More Information	Phosphorus, among others, is quite a vital nutrient for the life of a plant. Acidic soils render phosphorus mostly deficient due to fixation and precipitation of the phosphate ions in the iron and aluminum oxides and hydroxides dominant. Hence, proper replenishment of the soil P is very much important to cater the need of plant P requirement for better yield and development. The agricultural soils of Meghalaya are by default organic in nature and organic P pool contributes 15 to 80% of the total plant P nutrition. Moreover, a different nature of nutrient pools is evident in organic farming system compared to the conventional system. Lack of knowledge of these pools results in an unbalanced manuring plan which hinders successful production system. The dynamic fraction of P which is considered in conventional soil testing cannot explain the correct status of phosphorus in soils under organic production systems as the conventional soil testing protocols do not take into account the potentially mineralizable pool of phosphorus. Hence, a different extractant which can extract such potentially mineralizable P in an acidic soil under organic production system is highly required. The mineralizable P pool by various organic acids produced by the beneficial soil microorganisms can serve this purpose. Therefore, the present research work was carried out to identify the best suitable P extractant to extract such organic P pool. Result revealed that in comparison to the conventional Bray 1 extractant, 2% citric acid and double lactate extractants, among 6 different tested extractants were found to be strongly correlated to the total P. The significance of the research is to develop a proper recommendation of fertilizer dose and an appropriate soil testing protocol for successful organic cultivation.
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