Application of Indigenous Technical Knowledge (ITK) in the Geographic Context of Mid-Atlantic/North-Eastern American Agriculture

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This study was conducted to test the efficacy of indigenous technical knowledge (ITK) sourced in Maharashtra, India, when applied to the mid-Atlantic/north-eastern region(s)of the United States. A recipe for dashaparni-arka (DA) (the ITK in question), which is a plant extract made using native and localized flora and employed as a fertilizer (which has herbicidal, fungicidal, and pesticidal properties) was obtained in order to create a variant using flora native/localized to the American mid-Atlantic/north-eastern region(s). It was made certain that the plants used contained the same active compounds as those present in their Indian counterparts so that the variant would exhibit the same properties in differing environments (s). Citrus lemon, mentha piperita, artemisia vulgaris, ocimum basilicum, asclepias syriaca L., capsicum annuum, and allium ursinum were used. The variant DA was created on a smaller scale by dividing the original method by 40, yielding 4.8 L of usable product. The experimentation was carried out with the hypothesis that the created variant fertilizer would accelerate the rate of growth for the crops being experimented on. The created fertilizer was applied to wheatgrass crops important to the agriculture of the country and geographic context in question. It was determined that a 20 percent concentration of fertilizer in distilled water provided the highest rate of acceleration (of plant growth)- a higher concentration was proven to be detrimental to the plant.

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