

grow and cause dissemination of various diseases². The present procedure utilizes nonpathogenic bacterial strains and ultrasonic waves. The product is mainly composed of cellular biomolecules that can be easily absorbed and transported in the plant system. A term has been coined for such a bio-product: Single Cell Fertilizer (SCF). Plants face several stress conditions during the conversion of organic or inorganic materials. A plethora of molecules have to be synthesized by a plant to take in and metabolize these materials; for example, for the fixation of atmospheric nitrogen, nitrogenase, glutamate synthetase, glutamine synthetase, etc. are needed. This is associated with growth of symbiotic nitrogen fixers and free-living nitrogen fixers. However, the fertilizer is free of toxic ingredients and therefore will produce healthy food materials. A pilot-scale experimentation showed hyper growth of crop plants. Toxic metals cause various health hazards. Embryonic

differentiation is a complex molecular event which is orchestrated with a plethora of molecules, though the present knowledge on embryonic differentiation is enigmatic^{11,12}. Metal toxicity in food materials is the major reason of disordering in embryonic differentiation. It causes several health hazards that can be avoided using the readymade biomolecules for the growth of crop plants. Therefore, it will open up a new emerging field of science related to the use of biomolecule as readymade organic fertilizers.

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Occurrence of exotic *Hyptis suaveolens*

Hyptis suaveolens (L.) Poit. (bushmint, pignut) of the family Lamiaceae, a soft suffrutescent herb native to tropical America, is now a pantropical weed (Figure 1). Being introduced and naturalized throughout India, it has become an obnoxious weed and potential threat to our grazing grounds. It seems to have surpassed the damage done by the other Neotropical aliens like *Lantana camara*, *Chromolaena odorata* and *Parthenium hysterophorus* in certain parts of the country, like Andhra Pradesh (AP). The phenomenon of its entry, establishment, colonization and luxuriant growth in forest openings, areas of *podu* cultivation, and pastures in wildlife sanctuaries is alarming. It forms pure dense stands over waste areas, threatening the native plant wealth (natural vegetation).

The Pakhal Wildlife Sanctuary is situated 180 km away from Hyderabad and located in Warangal district, AP. It extends over an area of 839 sq. km and lies between lat. 17°42'N and 18°10'N and long. 79°55'E and 80°10'E. The sanctuary is

endowed with rich biota. It is home to the Gaur, Nilgai, Sambar and other important wild animals. *H. suaveolens* was found near habitations, roadsides, forest paths, etc. along the disturbance gradient. It is now widespread in the sanctuary, invading the core area and ascending the hills. As a result, it has often occupied the grazing grounds of wild animals and livestock. This species does not allow the



Figure 1. *Hyptis suaveolens*.

native ground flora to surface by physically occupying the land and outgrowing. It is known to produce allelochemicals which inhibit seed germination of other species. Invasion by this exotic species is leading to the loss of important palatable, economic and ethnomedicinal indigenous species. Besides, it enhanced forest fire during the dry seasons. There is an immediate need to eradicate this alien weed from the environs of the Pakhal Wildlife Sanctuary to save its floristic and faunal diversity.

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