Isolation of Pink Pigmented Facultative Methylotrophs (PPFM) from cotton phyllosphere

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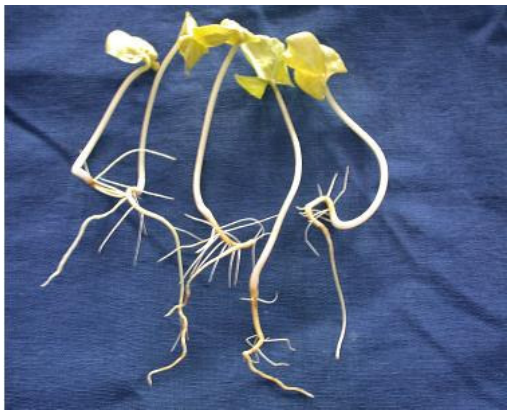
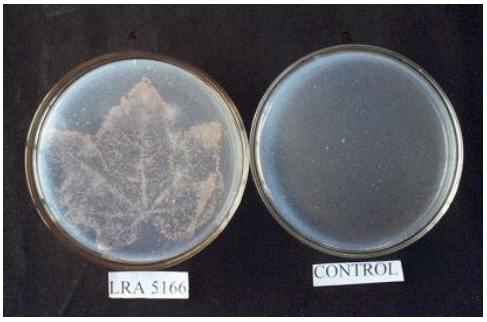
Pink Pigmented Facultative Methylotrophs (PPFMs) are ubiquitous in nature found in variety of habitats including soil, dust, fresh water lake sediments, leaf surface and nodules.These organizams are capable of growing on compounds containing one carbon. These bacteria influence the seed germination and seedling growth by producing plant growth regulators like Zeatin and related cytokinins. Hence, there is a possibility of increasing the effectiveness of the conventional bio inoculants by co-inoculating with PPFMs.For this an attempt has been made to isolate PPFM from the phyllosphere of cotton (CV.LRA 5166). Fresh leaf was collected and impregnated on Ammonium mineral salt medium supplemented with 0.5 % cyclohexamide. Here, 0.5 % methanol was used as carbon source. After seven days of incubation at room temperature, pink colonies of PPFM appeared which belongs to the genus Methylobacterium. These PPFM s isolated from LRA 5166 ad other growth promoting rhizobacteria were used to study the vigour index of cotton CV. LRA 5166 and the results revealed that cotton seeds soaked in *Azospirillum lipoferum* and PPFMs isolated from the phyllosphere of LRA 5166 produced significantly higher vigour index over other rhizo bacteria



Cotton seedling treated with CICR isolate of PPFM



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