

Antibiotic sensitivity assay for *Spirulina*: In relation to marker selection for genetic improvement

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Accepted : March, 2009

SUMMARY

Spirulina is a model organism in mass and outdoor cultivation of algae biomass as a source of protein, chemicals and nutrition. There is urgent need to improve food quality of *Spirulina* for human consumption. It's a need to develop selectable marker system for genetical improvement to introduce new genes. For this purpose the sensitivity of *Spirulina platensis* was tested against 5 different antibiotics (Kanamycin, Streptomycin, Ampicillin, Hygromycin and Chloramphenicol) with varying concentration of 25µg/ml to 1600µg/ml. *S. platensis* showed sensitivity to all antibiotics but maximum inhibition was found with Chloramphenicol. Thus the Chloramphenicol will be best marker for selection for further studies and the chlorophyll *a* concentration for sensitivity assay.

Key words : Spirulina, Transformation, Antibiotic sensitivity, Chloramphenicol