

Preparation of a cereal based probiotic drink and its anti microbial activity

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Probiotics are live microorganisms that are similar to beneficial microorganisms found in the human gut. Probiotics are available to consumers mainly in the form of dietary supplements and foods. Probiotics dramatically increase overall nutrition and enhance rapid cellular growth and development. Probiotics also produce many important enzymes and increase the availability of vitamins and nutrients, especially vitamin B, vitamin K, lactase, fatty acids and calcium. They help to kill viruses and parasites thus providing benefits of increased health. People taking probiotics have experienced lowered cholesterol. Yeast and fungal infections are prevented, and sometimes eliminated with supplements of probiotics. In rural areas, people generally do not consume probiotics rich foods, thus making them prone to diseases such as diarrhea, dysentery and similar other stomach disorders. An attempt is made

in the present study to make a millet based probiotics drink. In this regard; *Lactobacillus* was isolated from curd and grown in lactose medium at incubated for 24 hrs. Fifty microlitres of this broth was inoculated into aqueous extracts of *Zea mays* (corn), *Oryza sativa* (rice) and *Eleusine coracana* (finger millet) and the growth of *Lactobacillus* after 48 h was quantified. Changes in pH, acidity, sugar content, and viable cell counts were monitored. Best growth was observed on rice extracts. Antimicrobial activity of the probiotics extract was evaluated against pathogens such as *Salmonella typhi*, *Shigella dysenterica* and *Mycobacterium smegmatis*. The zone of inhibition was maximum for *Lactobacillus* isolated from *Oryza sativa*. Thus, the present work gives scope for administering *Lactobacillus* inoculated rice extract as probiotic supplement especially for the economical weaker sections.