

Prebiotic Potentials of different Oil Seed Meals

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Abstract—Use of probiotics and prebiotics in the treatment of various gut disorders has open up a new dimension in the field of alternative medicines. The WHO defines probiotics as live microorganisms which, when administered in adequate amounts, confer a health benefit on the host. Common probiotics are bacteria belonging to the genera *Bifidobacterium* and *Lactobacillus*. On the other hand selective compounds promoting growth of probiotic bacteria in host's intestine are called prebiotics. Commercially used prebiotics are inulin, oligofructose, lactulose etc which are quite high priced. Several compounds of plant origin are available at comparatively lower price but need to be explored for their prebiotic potentials.

The part of the seed remains after extraction of oil is known as the seed meals. Major parts of these meals are utilized as fodder, soil conditioner or fertilizers. These seed meals with low carbohydrate content but rich in fibre can serve as a prebiotic material. The study aimed at finding the prebiotic potential of different oil seed meals consumed in India and different parts of the world. The prebiotic potential of the seed meals were evaluated by measuring the cell growth (cfu /ml) of different lactobacillus strains grown on seed meals as the major carbon source. Prebiotic activity score of the substrates were also calculated. The result showed that the oil seed meals have tremendous potential as prebiotic food which is almost at par with the commercially important prebiotics like inulin.

Keywords: prebiotic, seed meals, probiotic, lactobacillus, prebiotic activity score