

# Nutritional Quality of Multipurpose Oat (*Avena sativa*) and their Functional Utilization

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**Abstract**—Multipurpose oat (*Avena sativa*) is a cereal crop grown globally for human consumption and animal feed. The uniqueness and advantages of oats over other popular cereals, because of its highly valuable nutritional characteristics, have been well studied and identified, opening new market “niches” for oats food industry. Oats naturally contain high amounts of valuable nutrients such as soluble fibers, proteins, unsaturated fatty acids, vitamins, minerals and antioxidants. Oat contains better quality of proteins surpassing other cereals due to their amino acid composition and at the same time high concentration of proteins. In present times, oat grains attracted the milling and food industry for preparation of functional and high nutritional quality foods. Oat nutrients are greatly utilized in industry, such as starch and protein for use in cosmetics,  $\beta$ -glucan and antioxidants as complements for human food, and polar lipids extracted for pharmaceutical and food supplements. The high amount  $\beta$ -glucan present in oat has anti-cholesterol effect and reduces cardiovascular disease (CVD) incidence. A high  $\beta$ -glucan level is more valuable for human consumption and less for animals because higher fibre levels resulted in lower nutritional energy. The people who cannot consume wheat flour due to presence of gluten can have oat flour as avenin replaces gluten in it, which is beneficial for patient of celiac disease.

**Keywords:** Multipurpose, functional, nutritional,  $\beta$ -glucan, proteins.