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Editorial

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[Edible vaccines to combat Infectious Bursal Disease of poultry](#)

Poultry industry is a domineering section of agriculture sector in the world as it provides meat, income and employment. Of the poultry industry, broiler chicken is dominating, as US export was more than 41 billion pounds of chicken (about 16.5 percent of production) in 2017 [1]. In Pakistan, the poultry industry contributes around 1.4 percent to the GDP and 31 percent to total meat production [2]. The global demand for this meat is rising in developing world including Pakistan. To meet the needs, rearing of poultry at both domestic and commercial levels is imperative [3]. However, the industry faces a lot of constraints, preventing it from reaching its maximal potential.

Research Article

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[Effects of KCl \(rpm/Heat\) on Bacterial Protease Production in E. coli, P. aeruginosa and E. faecalis](#)

Background: Proteases are a group of enzymes that catalyze the cleavage of peptide bonds in proteins found in nature. Microbial protease constitutes one of the most important for industrial applications. Proteases play a crucial role in numerous pathologic processes as well. KCl is an unnatural salt. The purpose of this study was to examine the effect of this salt on protease production under different agitation and heat conditions.

Methods: The effects of KCl (rpm/heat) on the production of a protease, of E. coli, P. aeruginosa and E. faecalis strain, were investigated. The decrease in protease production at 37 °C was also observed in this work that proved that heat plays a major role in enzyme production.

Results: The presence of KCl also caused a decrease in protease production in three bacterial species. The use of KCl appears to be a viable alternative when it is necessary to reduce protease activity outside of industrial applications (such as health care). This unique property makes it attractive and useful to be used in health industries. In the future we think that it will contribute to clarification of the matter in this way.

Mini Review

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[Significant influence for vitamin K on different metabolic diseases according to positive effect on levels of both vitamin D, and calcium](#)

Vitamin K was discovered as nutrient of blood clotting. There are two main types of vitamin K, vitamin K1, and vitamin K2. Although the structure of vitamin k is stable but also, there are differences between them. Vitamin k1 is mainly present in dark green leafy plant; while vitamin k2 present in animal and fermented plant. There are different sources of vitamin k. The normal human body is required about 200µg/day from vitamin k in both forms. Vitamin k1 can easily converted into vitamin k2. There is big difference between work of types of vitamin k, where each one responsible for special job. Vitamin k play important role in various metabolic process; vitamin k especially k2 play important role in protect the body from heart attack , in addition to reduce the development of osteoporosis and bone disease in combination with vitamin D and calcium. Vitamin k responsible for increase the secretion of male sex hormone and infertility. Vitamin k is consider one of the most important vitamin, it can save human from death as result of precipitation of calcium on arteries. Due to the importance of vitamin k, this article will discuss vitamin k, its presence, and role in different diseases.

Mini Review

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Fungi cause a variety of diseases and are difficult to treat owing to their eukaryotic nature resulting in dearth of antifungal targets at hand. This problem is further elevated many folds due to the resistance mechanisms of fungi through which they circumvent the antifungal drugs administered for therapeutic purposes. Fungi have a variety of strategies for obtaining these resistances, amongst them pivotal role is played by the ABC and MFS transporters. This article encompasses the important genes and their respective roles of both the classes of the transporters in different species of fungi.
