عنوان مقاله:

Detection of Salmonella spp. by Traditional and PCR Assays in Raw Milk, Maysan, Iraq

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خلاصه مقاله:

Salmonella spp are characterized as rod- shaped, motile, gram- negative bacteria which has the ability to infect animals and human. Salmonella spp occasionally causes sickness while in most cases not lead to severe symptoms. Analyzing milk for Salmonella spp. is not routine but traditional culture methods are used to evaluate the health condition of the dairy products. However, the antibody-based and nucleic-acid- based methods are practical for identifying Salmonella spp. Therefore, this research was designed to evaluate the use of traditional culture methods and PCR in detection of the presence of Salmonella spp. in raw milk samples in, Maysan Iraq. A total number of ۱۳۰ raw milk samples collected from Maysan Iraq. All the samples were analyzed for the presence of Salmonella spp. using traditional culture method and polymerase chain reaction (PCR). The culture method used in this experiment were done by using pre-enrichment, enrichment, selective plating and biochemical tests. The results of this traditional technique were compared with the results obtained from PCR method. The PCR was performed using a ۲۸۴bp sequence of the invA gene. The results showed that ۸ (۷.۰۷%) of samples were identified as salmonella positive using traditional culture technique but ۱۴ (۱۲.۳%) samples were detected as salmonella positive by PCR method. The results of the current research revealed that the traditional culture based methods are generally time costuming and labor intensive but the development of new rapid methods including DNA based methods such as PCR are more sensitive and have dramatically decreased the time necessary for the detection of bacteria.

کلمات کلیدی: