UF â€œTALLAGAâ€ CHEESE QUALITY MADE BY INCORPORATING BIFIDOBACTERIA AND DIFFERENT SALTING RATES

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ABSTRACT:

: Nine UF â€œTallagaâ€ cheese treatments were made, to three of them salt was added at the rate of 3%, one of them was served as control and to the other two Bif. bifidum ATCC 29521 and Bif. longum BL-04 were added individually. Another three treatments were made as described above except salt was added at the rate of 4%. The other 3 cheese treatments were made as above except salt was added at the rate of 5.0%. Obtained results showed that, increasing salting rate from 3 to 5 caused a significant decrease in ripening indices [water soluble nitrogen (WSN), Shilovich number and total volatile fatty acids (TVFA)], also total scores of sensory evaluation, bifidobacterial counts while increased the salt, ash content and pH value. Moreover, cheese treatments made by adding 3% salt were not significantly different from corresponding cheese treatments made by adding 4% salt. Incorporation of bifidobacteria increased the ripening indices, total score of organoleptic evaluation, acidity, but did not affect significantly fat, total protein, ash and salt contents of cheese. Cheese treatments made by incorporating Bif. longum were not significantly different from corresponding cheese treatments made by incorporating Bif. bifidum. Total counts of bifidobacteria increased up to the 1st week then decreased till to the end of storage period. Cheese treatments those made by adding 4% salt and incorporating bifidobacteria were the most acceptable cheese and even after storage for 4 weeks contained bifidobacterial counts higher than that should be present to achieve their health benefits.

Key words: UF â€œTallagaâ€ cheese, bifidobacteria, probiotic bacteria, salting rate.

MANUFACTURE OF YOGHURT FROM COW'S MILK FORTIFIED WITH TRYPSIN MODIFIED WHEY PROTEINS

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ABSTRACT:

Two types of whey protein concentrates (WPC) heat precipitated salted sweet whey (SWPC) ultra filtrated acid whey (FWPC) were hydrolyzed with trypsin at the rate of 0.4 gm / 100 gm protein. Nine treatments of yoghurt were made to study the effect of replacing non-fat dry milk with trypsinized WPC on the quality of yoghurt. Replacement of non-fat dry milk with hydrolyzed WPC caused significant ($p < 0.05$) increase total protein, ash, non-protein nitrogen and diacetyl (DA) and acetyl methyl carbinol (AMC) contents, curd tension and scores of organoleptic properties, while syneresis decreased. On the other hand, fortification of cow's milk with trypsinized whey protein concentrates (mFWPC and mSWPC) did not affect significantly the total solids content, acidity and pH values of the resultant yoghurt treatments. The type of WPC did not have significant effect on total solids, total protein, ash and non-protein nitrogen contents, while mFWPC was effectively increased the DA + AMC, scores of organoleptic properties and decrease the syneresis of whey as compared to yoghurt treated with mSWPC. Total solids, total protein, non-protein nitrogen and ash content did not change significantly during the storage period; however, the acidity increased and pH value decreased as the storage period proceeded. DA and AMC increased, while whey syneresis decreased up to the 6th day of storage, thereafter DA + AMC decreased, whilst whey syneresis increased up to the end of storage period. It could be replace non-fat dry milk with mFWPC up to 75% and mSWPC up to 50% without detrimental effects on yoghurt quality made from cow's milk.