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Contaminated Consequences of Mush on Human Intestinal Bacteria

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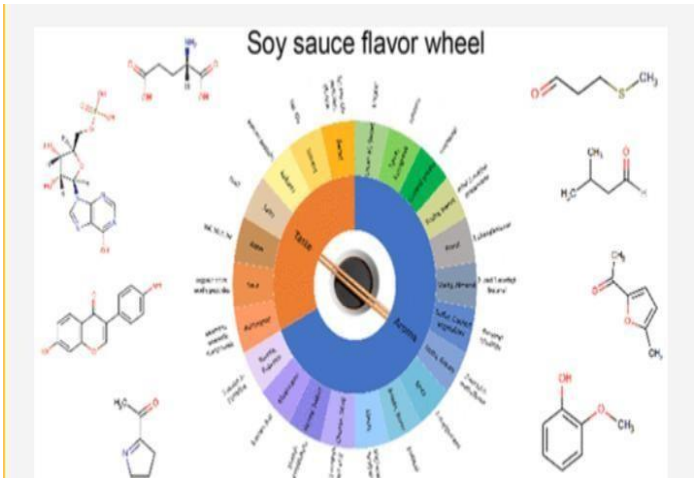
Abstract: *Soy sauce is made from fermented paste of soybeans, roasted grain, brine and Aspergillus oryzae or Aspergillus sojae mold. To avoid microbial contamination during the production process, 16% - 20% (w/v) of sodium chloride is commonly added. High salt food causes health risks such as high blood pressure, heart, and kidney disease. Therefore, the sodium chloride content of soy sauce should be reduced to 5% - 8%. A studies have shown that the soybeans fermented by microorganisms also provide a variety of functions, such as antioxidation, lowering blood pressure, lowering blood sugar, anticancer, anti-aging, etc.*

Keywords: Soy sauce

I. INTRODUCTION

Soy sauce traditionally used in Japan and several oriental countries, is a liquid seasoning currently used in cooking worldwide. The daily consumption of soy sauce in Japan is estimated at about 30 ml per person according to the data from the Japan Soy Sauce Brewers Association.

Studies suggest that soy sauce contains certain bioactive components in addition to taste and aroma compounds and has various biological functions, including anticarcinogenic, antimicrobial, antioxidative, and antiplatelet activities, and the inhibition of an angiotensin I- converting enzyme. Therefore, soy sauce is considered to be not only a traditional seasoning but also a functional food. Soy sauce is probably man's oldest prepared seasoning. Processed similarly to miso except that the paste produced is pressed in both Oriental and American cuisine.



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There are two types of soy sauce: fermented soy sauce and soy sauce made from hydrolysed vegetable proteins (HVP). Soy sauce traditionally used in Japan and several oriental countries, is a liquid seasoning currently used in cooking worldwide. The daily consumption of soy sauce in Japan is estimated at about 30 ml per person according to the data from the Japan Soy Sauce Brewers Association.[1] Vinegar has long been used worldwide as a basic seasoning in the preparation and preparation of certain food, because it's sharp taste makes it so useful and versatile.

A considerable quantity of vinegar is marketed as such for domestic use. In the UK and USA the table vinegar is most widely used is cider vinegar, while in Ireland it is malt vinegar, and in grape growing countries, such as Italy, France and Spain, wine vinegar. In Far East, in addition to the traditional rice vinegar, synthetic vinegar is common. Vinegar adds flavor to vegetable and meat product. It is one the ingredient of salad dressing, sauce, such as Tabasco, and tomato product, such as ketchup, mustard and Aspics.

Mixed with oil and salt makes the classic vinaigrette, and it can be used as a condiment for salad and as a salt for cold, cooked vegetables, meat and fish.[1]

II. MATERIALS AND METHODS

Firstly prepare 2 ml suspension for bacteria Staphylococcus aureus using saline. Then take nutrient agar plates put 1 ml of bacterial suspension prepared on nutrient agar with the help of sterile pipette.

Spread it on nutrient agar plate using spreader. Incubate the plate at room temperature for 10 minutes.

After that make wells in agar using cork borer, put the sample of soy sauce in one well and put a sample vinegar in another well with the help of micropipette.

Incubate the plate at 37° C for 24 hours.

III. RESULTS

After incubation of 24 hours the results are checked, we found zone of inhibition for both the samples of soy sauce and vinegar.

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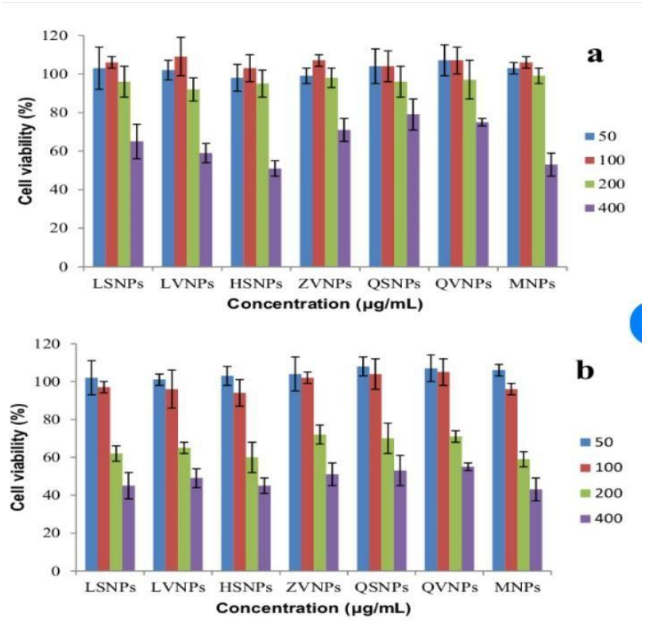

Zone of inhibition for vinegar is more in diameter than soy sauce that means vinegar is more toxic for bacteria present in human intestine.

IV. CONCLUSION

Both soy sauce and vinegar have benefits and side effect also, it affects bacteria present in human intestine.

Today soy sauce and vinegar both are use in huge amount in almost many Asian countries so it is important to know it's effect.

We can conclude that, both the samples are harmful on bacteria Staphylococcus aureus because zone of inhibition was in results.

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