

MICROBIOLOGICAL QUALITY IN *MAST DAGANG* GRAVY OF
SELECTED LOCAL FOOD PREMISES

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**MICROBIOLOGICAL QUALITY IN *NASI DAGANG* GRAVY OF SELECTED
LOCAL FOOD PREMISES**

By

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PENGAKUAN DAN PENGESAHAN LAPORAN

PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk :

Microbiological Quality in Nasi Dagang Gravy of Selected local Food Premises

oleh *Siti Husna Zakaria* No Matrik..... telah
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DECLARATION

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ABSTRACT

Foodborne illness in Terengganu has become increasingly staggering in numbers recently according to the statistics provided by the Ministry of Health, Malaysia. Terengganu is currently at the fifth place in statistic chart of the trend of food poisoning cases linked to ready-to-eat foods. The objectives of the present study were to determine the microbial profiles of *Nasi Dagang* Gravy of selected local food premises. Gravy samples were purchased over a period of two months from three selected street premises located in Kuala Nerus area, Terengganu. Standards methods were used to determine the Total Plate Count (TPC), *Staphylococcus aureus* count, Coliform count, *Psychrotrophic* count, Yeast and Mould count and the presence/absence of presumptive *E. coli*. In descending order of average microbial counts, the highest counts were Total Plate Count, *Staphylococcus aureus*, Yeast and Mould, *Psychrotroph* and lastly Coliform. The presence/absence of presumptive *E. coli* were also determined which was 37%. The microbiological analysis revealed that all bacteria counts were insignificantly ($P>0.05$) difference between three premises except for total plate count. Overall this study demonstrated that the microbiological quality of *nasi dagang* gravy within the acceptable standard of ready-to-eat food by Australian/New Zealand Standard that was used by the Ministry of Health, Malaysia.

ABSTRAK

Kes keracunan makanan telah meningkat di Terengganu berdasarkan statistik yang dikeluarkan oleh Kementerian Kesihatan Malaysia. Daripada statistik kes keracunan makanan berkaitan makanan yang sedia dimakan, negeri Terengganu berada di tempat ke lima antara semua negeri di Malaysia. Gulai nasi dagang telah dibeli dari tiga premis makanan terpilih di sekitar Kuala Nerus Terengganu dalam tempoh dua bulan. Objektif kajian ini adalah untuk mengkaji profil mikrobiologi bagi Gulai Nasi Dagang di kedai makanan yang terpilih. Kaedah standard telah digunakan untuk mengetahui jumlah Kiraan Plat Total (TPC), kiraan *Staphylococcus aureus*, kiraan coliform, kiraan *Psychrotroph*, kiraan yis dan kulat dan jangkaan kehadiran *E. coli*. Dalam turutan tertinggi jumlah kiraan bermula dengan Kiraan Plat Total, *Staphylococcus aureus*, Yis dan Kulat, *Psychrotroph* dan akhir sekali Koliform. Kehadiran jangkaan *E. coli* juga dikenalpasti iaitu 37%. Analisis mikrobiologi telah menunjukkan tiada perbezaan signifikan ($P \geq 0.05$) antara premis dan analisis mikrob kecuali untuk kiraan plat total. Keseluruhannya kajian ini menunjukkan tahap kualiti mikrobiologi tidak melebihi standard yang ditetapkan oleh Australian/New Zealand Standard bagi makanan yang sedia dimakan, standard ini juga diterima pakai oleh Kementerian Kesihatan Malaysia.