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7. SUMMARY

Fifty random samples of frozen rabbit carcasses were collected from different shops and supermarkets at different localities of Alexandria governorate.

The samples were transferred directly in an ice box to laboratory where they were examined organoleptically, chemically and microbiologically.

7.1. Organoleptic evaluation

The organoleptic evaluation of frozen rabbit carcases aimed to detect their odour, taste, consistency and colour.

Regarding the odour, the normal one was the predominating in 88%, while the abnormal odour represented 12%.

On the other hand, the acceptable taste was noticed in 88% of examined frozen rabbit samples, while, the unacceptable was 12%. But, the hard consistency was noticed in 88% of examined frozen rabbit samples, while the slight soft consistency was 8% and soft was 4%. While, the pale rose (normal) colour was noticed in 88% of examined frozen rabbit samples, while the grey colour was 8% of sample and bluish grey colour was 4% of examined samples.

7.2. Chemical evaluation

7.2.1. Determination of pH values

pH values of examined frozen rabbit carcasses were ranged from 5.70 to 6.80 with a mean value 5.969±3.85.

7.2.2 Determination of total volatile nitrogen T.V.N.

T.V.N. of examined frozen rabbit carcasses was ranged from 13.00 to 20.40 mg/100 gm meat sample with a mean value 15.11±0.285.

7.3. Microbiological evaluation

7.3.1. Total mesophilic bacterial count

The mean value of total *mesophilic* bacterial count per gram of frozen rabbit meat was $1.4\times10^5\pm3.5\times10^4$ cfu/g and 100% of samples were positive.

7.3.2. Total psychrotrophic bacterial count

The mean value of total *Psychrotrophic* bacterial count per gram of frozen rabbit meat was $2.4\times10^4\pm6.5\times10^3$ cfu/g and 100% of samples were positive.

7.3.3. Total Staphylococci count

The mean value of total *Staphylococci* count was $7.9\times10^2\pm1.6\times10^2$ cfu/g of frozen rabbit meat and 76% of samples were positive and could be identified coagulase positive *Staph.aureus* from 32% of *Staphylococci* isolates.

7.3.4. Enterococci count

⇒ The mean value of *Ent.faecalis* count per gram of frozen rabbit samples was $5.1\times10^2\pm1.1\times10^2$ cfu/g and 68% of samples were positive.

⇒ The mean value of *Ent.faecium* count per gram of frozen rabbit samples was $5.9\times10^2\pm1.4\times10^2$ cfu/g and 52% of samples were positive.

⇒ The mean value of *Ent.intermediate* count per gram of frozen rabbit samples was $4.1\times10^2\pm8.2\times10$ cfu/g and 60% of samples were positive.

7.3.5. Total mould and yeast counts

7.3.5.1 Total mould count

The mean value of total mould count per gram of frozen rabbit samples was $1.7\times10^2\pm7.3\times10$ cfu/g and could identify *Penicillium* spp., *Aspergillus fumigatus, Aspergillus nigar, Rhizopus* spp., *Cladosporium* spp. and *Mucor* spp. at percentages as 48%, 22%, 16%, 16%, 16% and 14%, respectively.

7.3.5.2 Total yeast count

The mean value of total yeast count per gram of frozen rabbit samples was $3.2\times10^3\pm9.1\times10^2$ cfu/g and 100% of samples were positive.

The hygienic significance of microbial count and public health hazards of the isolated microbes as well as the suggestive hygienic measures to improve the quality of frozen rabbit meat were discussed.