

MICROBIOLOGICAL ANALYSIS OF WATER QUALITY



Microbiological water analysis is an aspect of water quality where water is analyzed to estimate the numbers of microorganisms present, and to identify the type of microorganisms in the water samples if necessary.

Drinking water for animals may be contaminated by pathogenic microorganisms such as Salmonella, coliform bacteria as well as yeasts and moulds. These microorganisms may cause disease in animals if present in high concentrations. For instance, Salmonella and *E. coli* infections in poultry can cause lethargy, decreased appetite, diarrhoea and even high mortality which leads to decreased production of meat and eggs.

VFAD provides microbiological analysis for water specimens. Our microbiological water analysis methods are accredited in accordance with ISO/IEC 17025 and are listed as follow:

- Salmonella Isolation & Serotyping
- Standard Plate Count
- Total Coliform Count
- *Escherichia coli* Count
- Total Yeast and Mould Count

Sampling & Delivery Guidelines:

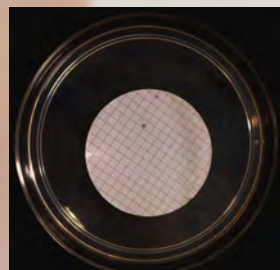
1. Collect 500-1000 ml water in a clean, leak-proof container or plastic bottle.
2. Tighten bottle cap to prevent leakage.
3. Label legibly with identification code and other relevant details using permanent marker or self-stick labels.
4. Place container or bottle in a clean plastic bag and seal securely.
5. Pack specimen in a Styrofoam box or suitable transport box with sufficient refrigerant materials (ice/gel packs/dry ice).
6. Fill up VFAD specimen submission form and state clearly customer name and address, billing information, sender particulars, specimen details and other relevant information.
7. Courier or deliver specimen along with filled submission form to the laboratory.



Filtration unit used in water testing.



Water Filtration process.



E. coli colonies growing on filter membrane on agar plate.

水质微生物分析



水质微生物分析是确保水质安全的重要环节，水样中的微生物含量可被估计，必要时也可识别水样中的微生物种类。

在缺乏优良的水源或卫生环境下，动物饮用水有可能被病原微生物污染。高浓度的沙门氏菌、大肠菌群，酵母和霉菌可导致家禽受感染或患病，例如沙门氏菌和大肠杆菌可引起嗜睡、食欲不振、腹泻、甚至高死亡率，从而影响肉类和蛋类的品质及生产量。

VFAD提供的水质微生物分析已获 ISO/IEC 17025 认证，包含以下：

- 。 沙门氏菌分离鉴定
- 。 标准平皿计数（检测菌落总数）
- 。 总大肠菌群数
- 。 大肠杆菌计数
- 。 总酵母和霉菌计数

取样和投递参考

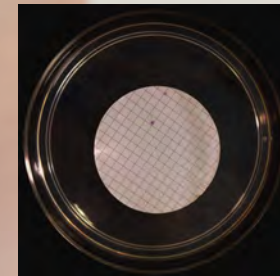
1. 收集 500-1000 毫升 (500-1000 ml) 水样品在一个干净、防漏的容器或塑料瓶（无菌容器为佳）。
2. 拧紧瓶盖，以防泄漏。
3. 使用永久性麦克笔或自粘标签清晰地标记样品识别及其他相关细节。
4. 将容器或瓶子包装进干净的塑料袋中，稳固密封。
5. 将样品包装进拥有足够制冷剂（冰/凝胶包/干冰）的泡沫塑料盒或合适的运输箱包里。
6. 填写 VFAD 样品提交表格并清楚填上客户姓名和地址、帐单资料、寄件人资料、样品详细资料及其他相关资料。
7. 样品和样品提交表格一同投递/邮寄/快递。



过滤装置应用于水测试。



水过滤过程。



琼脂平板中的大肠杆菌菌落于滤波器上生长。



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