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International



**Veterinary Club**

Sharpen your skills

## Veterinary Market Trends

Online zoom  
7 pm Egy - 8 pm KSA - 9 pm UAE



Wed. 26 / 2 / 2025



**Dr. Osama Shedeed**  
**Veterinary Expert**



# Biography



- Veterinary Student / Poultry Lab Practice 1997-2002
- DVM June 2002
- Poultry Lab Manager. Egypt 2003-2006
- Pet Food Processing and sales. 2006-2009
- Poultry Vaccination Service Manager. 2009-2012
- Poultry consultant 2012-2013
- ME Area Sales Manager. 2013-2015
- Poultry Key Account Manager. 2015-2021
- Poultry Technical Manager 2022-2024
- Technical Account / Product Manager Livestock. 2024-Present.





# Trends and Innovations in Modern Veterinary Practice Across Different Sectors

Dr. Osama Shedeed  
Veterinarian  
February 26<sup>th</sup>, 2025





# Agenda

- Progress in Poultry Farming and Hatchery Operations
- Innovations in Poultry Vaccination Techniques
- Modern Strategies for Managing Dairy Cattle
- Emerging Trends and Innovations in Beef Cattle
- Aquaculture: Advances and Veterinary Approaches
- Developments in Veterinary Care for Companion Animals
- Animal Nutrition and Practices in Feed Milling
- Ensuring Food Safety in Processing Facilities
- Veterinary Diagnostic Procedures in Laboratories





A large group of fluffy yellow chicks are gathered in a wooden bowl. The chicks are covered in soft, downy feathers and have small, pink beaks. They are looking in various directions, some towards the camera and others away. The background is slightly blurred, emphasizing the chicks in the foreground.

# **Progress in Poultry Farming and Hatchery Operations**



# Progress in Poultry Farming and Operations

## Enhanced Ventilation Systems

Modern poultry houses are equipped with advanced ventilation systems that ensure optimal air circulation and temperature control for the birds.



## Biosecurity Measures

Improvements in biosecurity measures help prevent disease outbreaks, ensuring the health and safety of poultry flocks.



## Innovative Feeding and watering Systems

Automatic feeders and climate control systems are revolutionizing poultry farming, resulting in better nutrition and production outcomes.





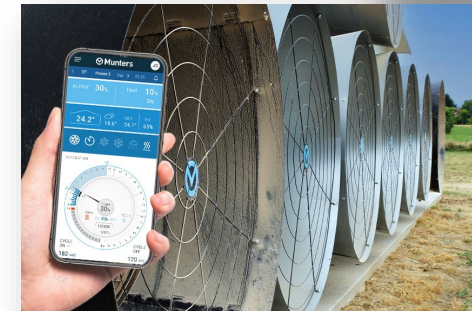


# Automation and Monitoring Technologies



## Real-Time Environmental Monitoring

Automation technologies facilitate the continuous observation of environmental factors, helping to maintain ideal conditions for the health and productivity of poultry.



## Monitoring Avian Health

The incorporation of monitoring technologies empowers farmers to efficiently assess bird health, allowing for early detection of diseases and promoting better welfare for the entire flock.

## Enhanced Management Efficiency

Automation lowers labor expenses and boosts management effectiveness by delivering precise data that supports informed decision-making in poultry farming.







# Innovations in Poultry Vaccination Techniques



# Modern Poultry Vaccines from Farm to Hatchery



## Improved Vaccine Efficacy

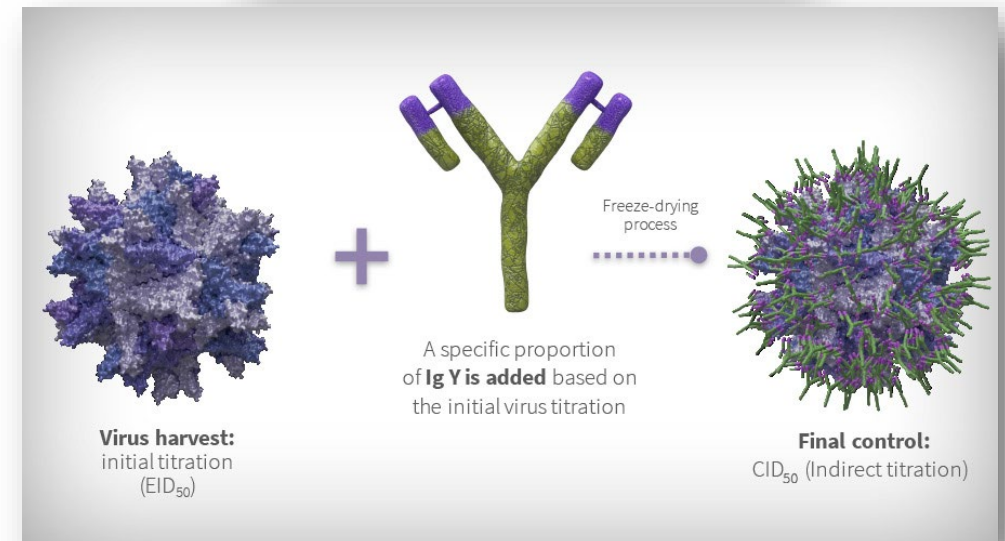
Recently developed vaccines for poultry exhibit improved efficacy, providing better defense against common avian diseases.

## Reduced Adverse Effects

The latest vaccine formulations have led to a significant reduction in side effects, enhancing health outcomes for poultry.

## Combined Disease Vaccines

Vaccines aimed at combating several diseases simultaneously have been introduced, boosting protection levels for poultry populations.





# Innovative Vaccination Techniques



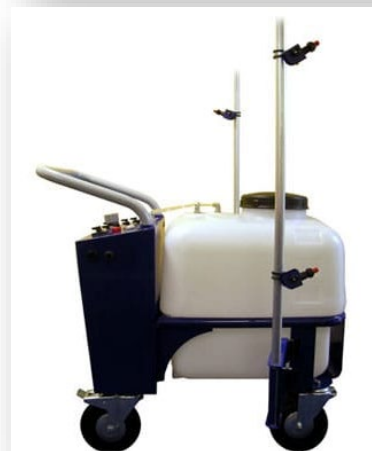
## Hatchery Vaccination

Hatchery Vaccination (INOVO) program increases vaccine coverage, providing a more reliable and controlled mass vaccination compared to traditional Farm vaccination.



## Spray Vaccination

Spray vaccination is a novel method that enables vaccines to be administered directly to birds, significantly reducing stress during the process.



## Enhanced Health Outcomes

Implementing advanced vaccination methods contributes to better overall health and welfare in bird populations by alleviating the stress linked to vaccination procedures.







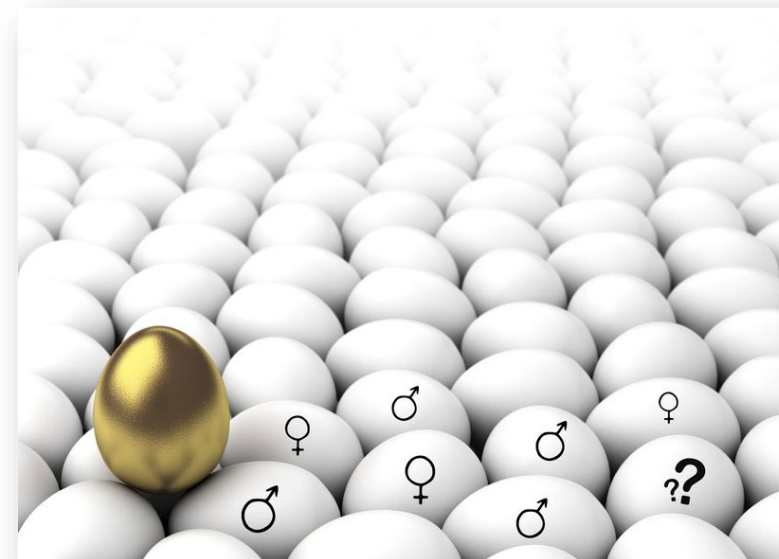
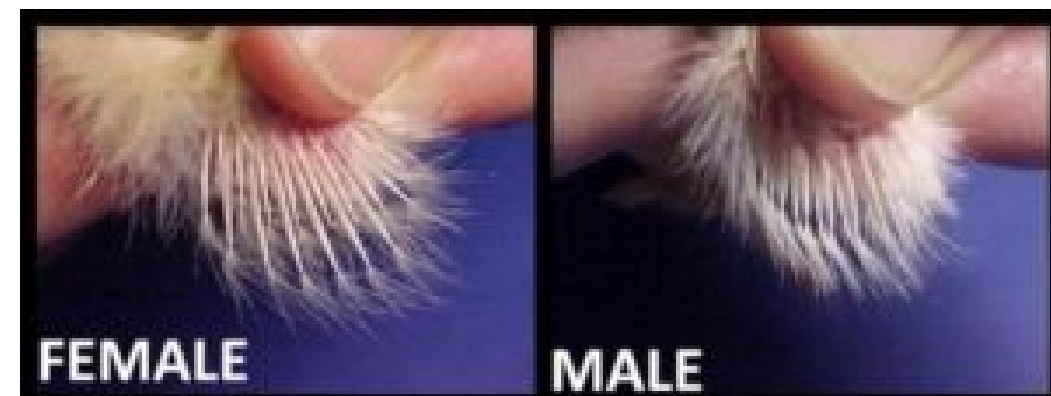
# Innovative Hatchery Equipment



## Breeders & Commercial layer Sexing

Poultry sexing increases profitability by optimizing feed strategies, increasing flock uniformity, and enhancing plant performance and product yield.

However, manual feather-sexing requires sizable labor forces, results in variable accuracy, and creates uncertainties in hatchery operations. This has caused some in the industry to move away from a production approach with known benefits.





# Vaccination Audit:



Vaccine Storage and transportation are a major challenge is ensuring proper storage conditions for vaccines, which is critical for their effectiveness.



Method of Administration Challenges



Administering vaccines requires trained personnel to ensure safe and effective delivery to DOC/Chicken

Vaccine	Strain	Dose
ek's disease	HYT	0.20 ml
vcastle disease	Lasota	One drop
ctious bursal ase	Georgia	One drop
/l pox	Fowl pox	0.20 ml
vcastle disease (conditions)	Lasota	One drop
vcastle disease *	R2B	0.50 ml
/l pox *	Fowl pox	0.20 ml
ccines at every six months interval		

Implementing robust vaccination schedules can help improve coverage and ensure timely administration of vaccines.

# Modern Strategies for Managing Dairy Cattle





# Genetic Selection and Breeding Innovations

## Improved Milk Yield

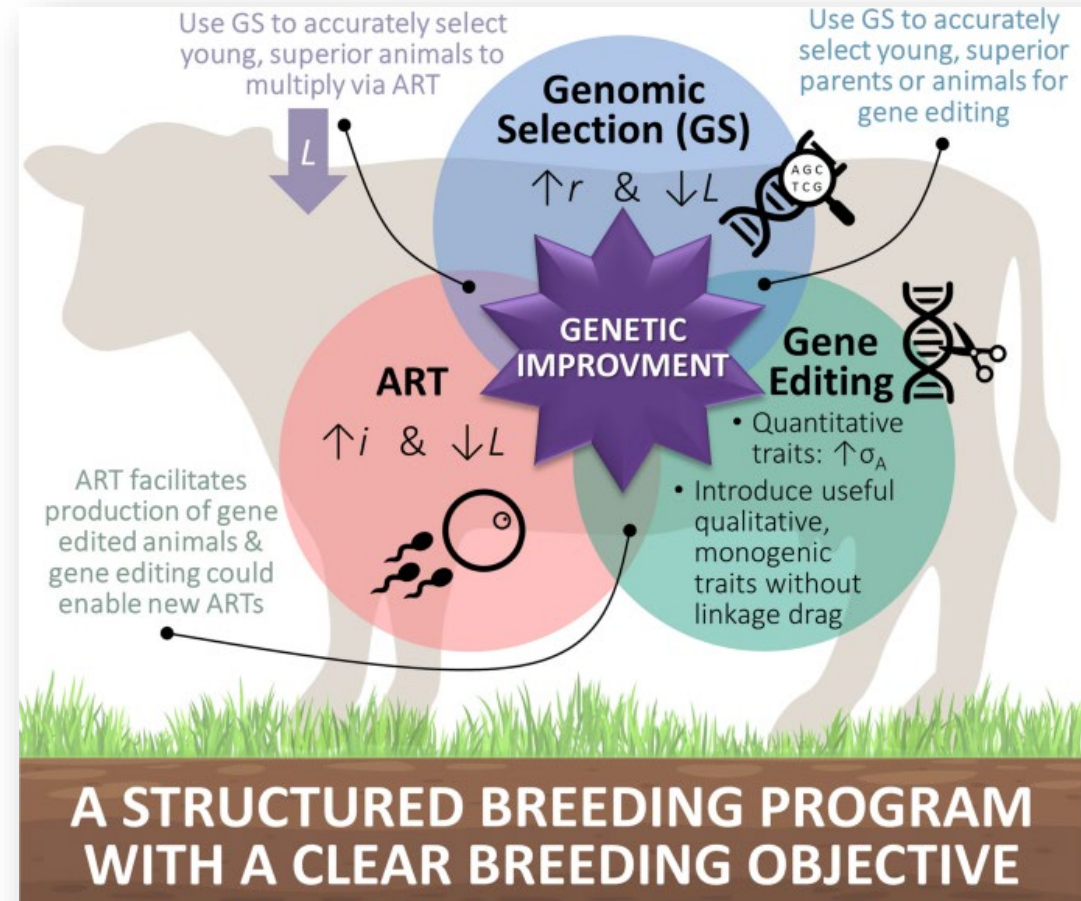
Modern breeding methods enable farmers to choose dairy cattle with traits that lead to increased milk production, positively impacting the dairy sector.

## Improved Disease Resistance

Genetic selection plays a key role in breeding dairy cows that exhibit enhanced resistance to diseases, thereby promoting the health and sustainability of herds.

## Sustainable Dairy Practices

Developments in genetic selection foster more sustainable methods in dairy farming, benefiting both the environment and the economy.



# Nutritional Advancements and Feeding Strategies

## Tailored Feed Formulations

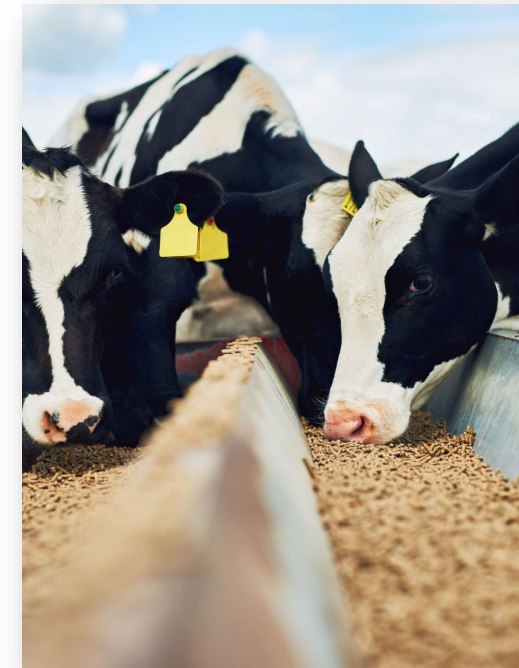
Advanced feed formulations are created to improve the nutrition of dairy cows, resulting in increased milk production.

## Maximizing Milk Output

Well-balanced diets play a crucial role in maximizing milk output while also maintaining the health of dairy herds.

## Enhancing Herd Well-Being

Nutritional advancements foster overall herd well-being, decreasing the risk of disease and encouraging longevity among dairy cows.





# Health Monitoring and Disease Prevention



## Wearable Devices

Wearable devices provide real-time health tracking for dairy cows, enhancing the ability to identify health problems before they worsen.



## Proactive Identification

Monitoring for early signs of health issues enables farmers to take prompt action, thus avoiding potential disease outbreaks.



## Health Management Approaches

Robust health monitoring supports the development of proactive strategies for disease prevention, promoting the well-being of the entire herd.







# Emerging Trends and Innovations in Beef Cattle





# Advances in Cattle Health and Wellness



## Health Management Strategies

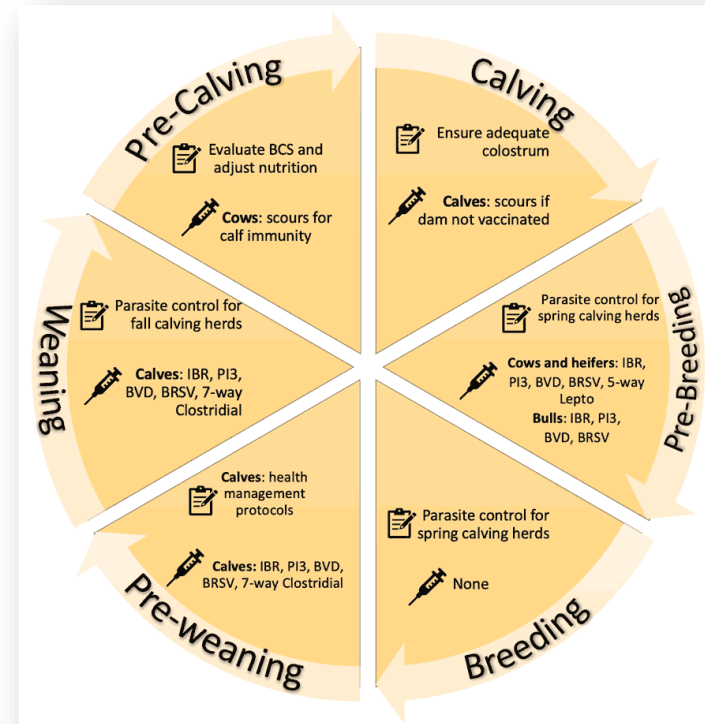
The adoption of sophisticated health management strategies greatly enhances health results for beef cattle in agricultural practices.

## Vaccination Plans

Consistent vaccination plans are essential for disease prevention, safeguarding the health of cattle and boosting overall farm efficiency.

## Disease Surveillance

Robust disease surveillance systems are vital for prompt identification and intervention, fostering animal welfare and enhancing farm profitability.





# Enhanced Management and Nutritional Practices

## Targeted Nutrition

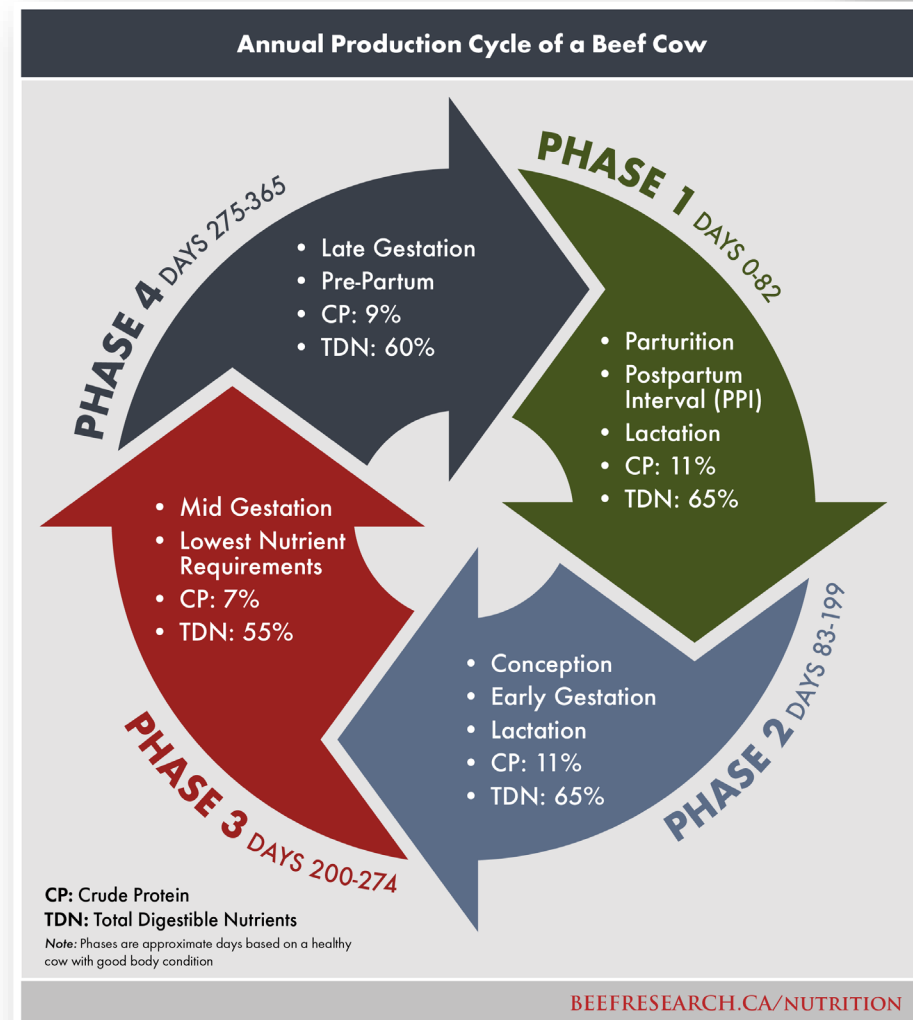
Targeted nutrition focuses on customizing diets according to the specific requirements of each animal, resulting in improved growth rates and better feed efficiency.

## Incorporation of By-Product Feeds

Adding by-product feeds to cattle diets can lower feed expenses while preserving nutritional quality and supporting sustainable practices.

## Enhancing Production Systems

Advanced feeding strategies improve the overall efficiency of beef production systems, ensuring that animals grow in a sustainable and effective manner.





# Sustainable Beef Production Practices



## Rotational Grazing

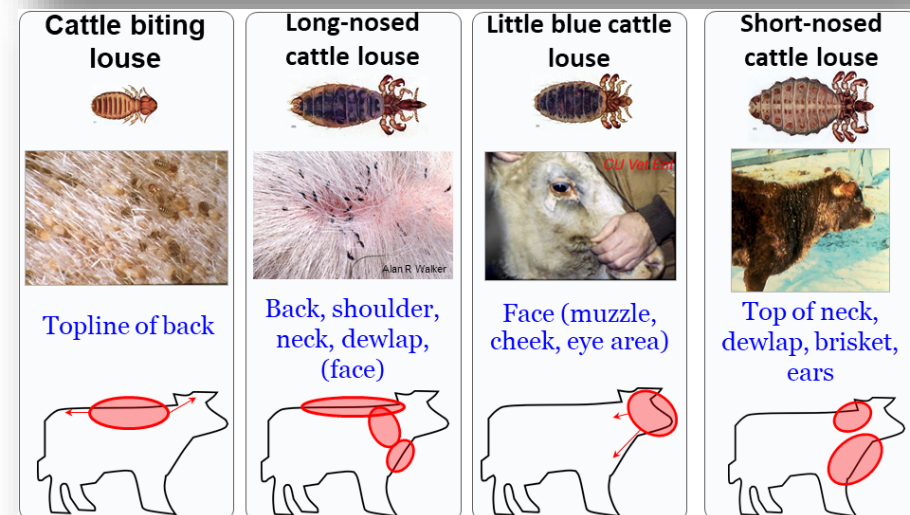
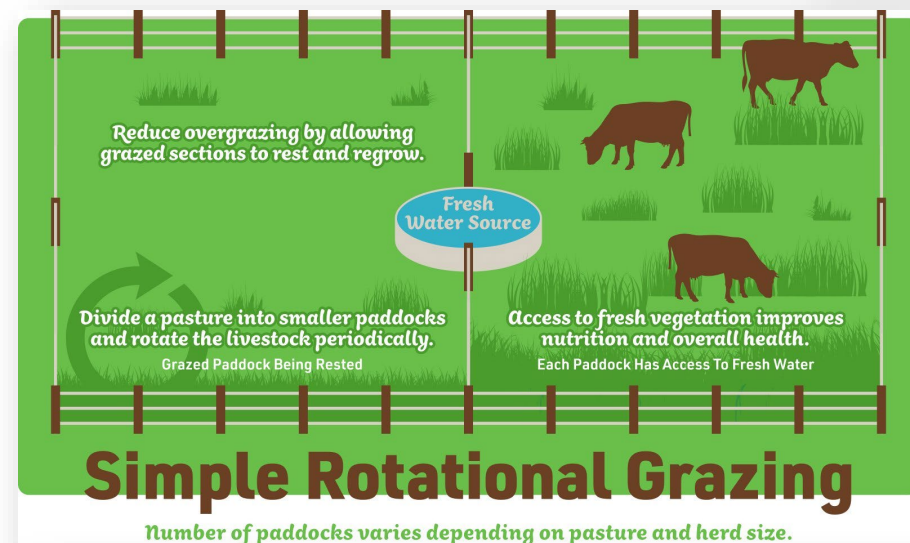
This practice involves moving livestock among various grazing locations, which helps pastures recover and supports the health of grasslands.

## Integrated Pest Management

This strategy reduces reliance on harmful chemicals by employing biological controls and natural pest repellents to ensure cattle remain healthy.

## Resource Conservation

Initiatives such as conserving water and preserving soil are essential in sustainable beef production to lessen environmental effects.







# **Aquaculture Advancements and Veterinary Approaches**





# Disease Prevention and Health Management



## Strategies for Effective Disease Prevention

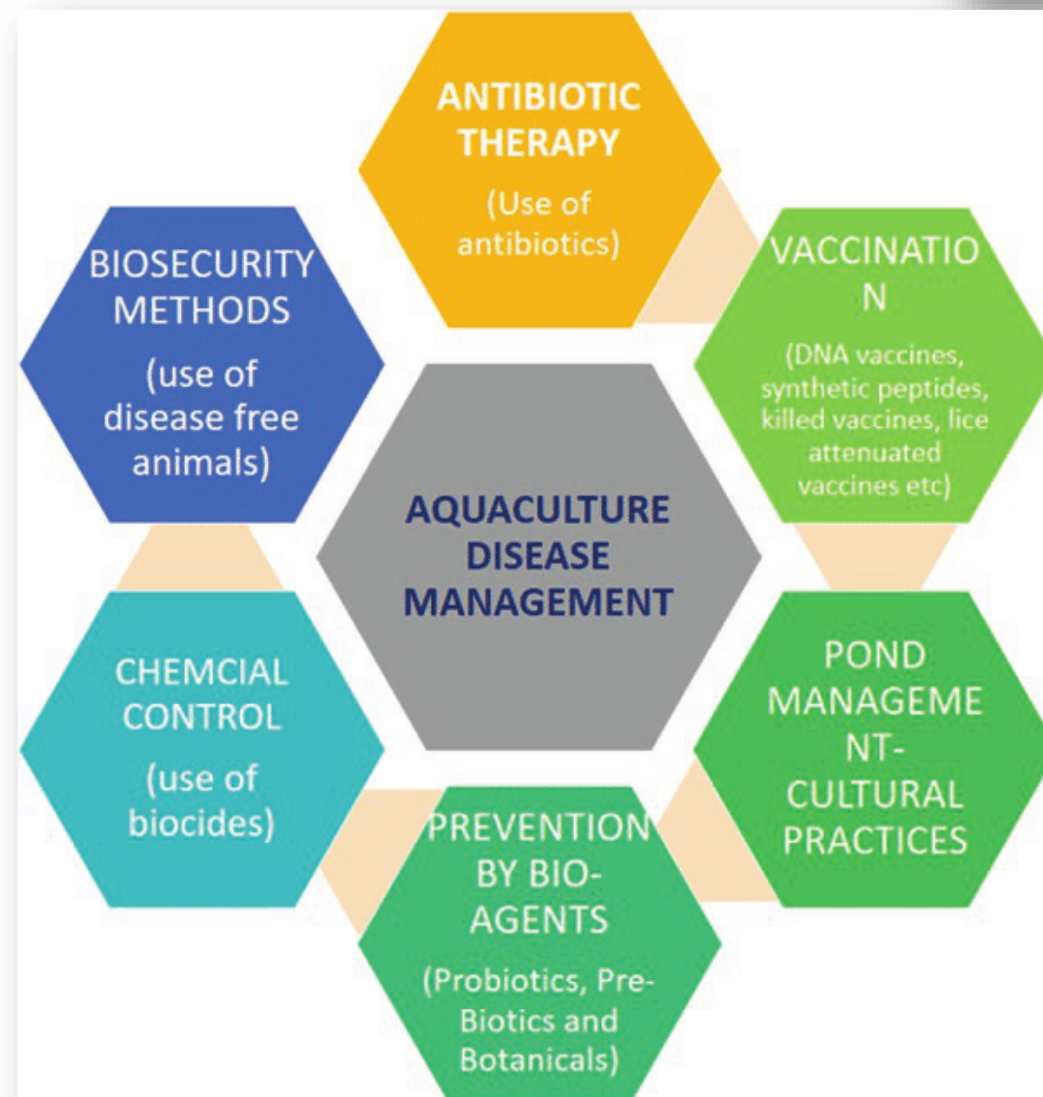
Adopting effective disease prevention strategies is essential for reducing losses in aquaculture ventures.

## Protocols for Health Management

Creating health management protocols plays a vital role in fostering healthy populations within aquaculture systems.

## Reducing Losses

By prioritizing disease prevention and health management, aquaculture businesses can greatly decrease stock losses.



# Sustainable Aquaculture Practices

## Sustainable Sourcing

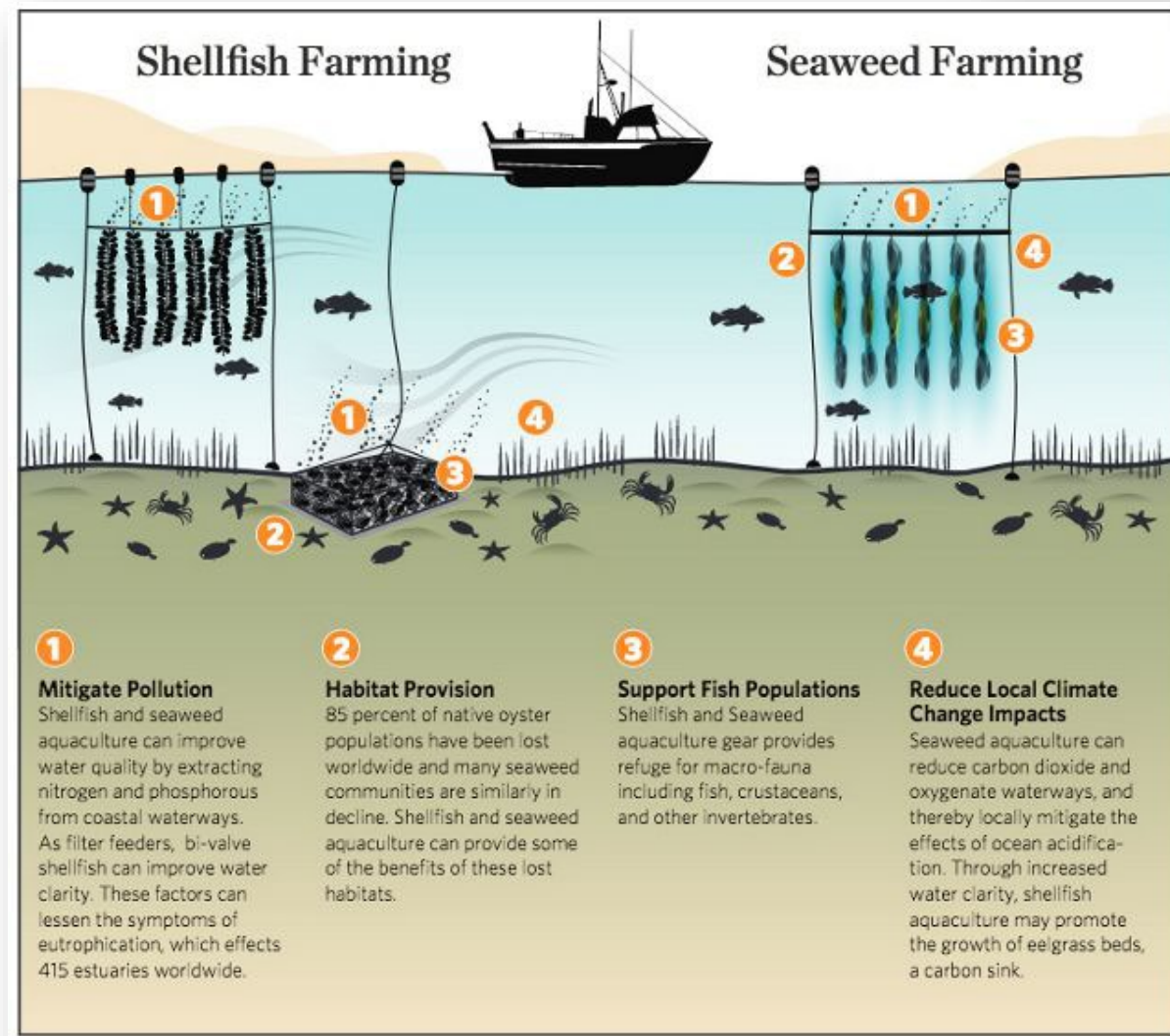
Sustainable sourcing in aquaculture guarantees that fish and seafood are harvested in an environmentally friendly manner, reducing ecological impact.

## Ecosystem Protection

Protecting habitats is essential for sustainable aquaculture, as it helps maintain ecosystem equilibrium and safeguards aquatic species.

## Minimizing Dependence on Wild Fish

Minimizing the dependence on wild-caught fish for aquaculture feed fosters sustainability and helps conserve fish populations.





# Innovations in Feed and Nutrition



## Alternative Feed Components

Incorporating alternative ingredients into aquaculture feed recipes can greatly enhance fish growth and overall well-being.

## Minimizing Environmental Effects

New feed formulations are designed to lessen the environmental consequences linked to conventional feed production techniques.

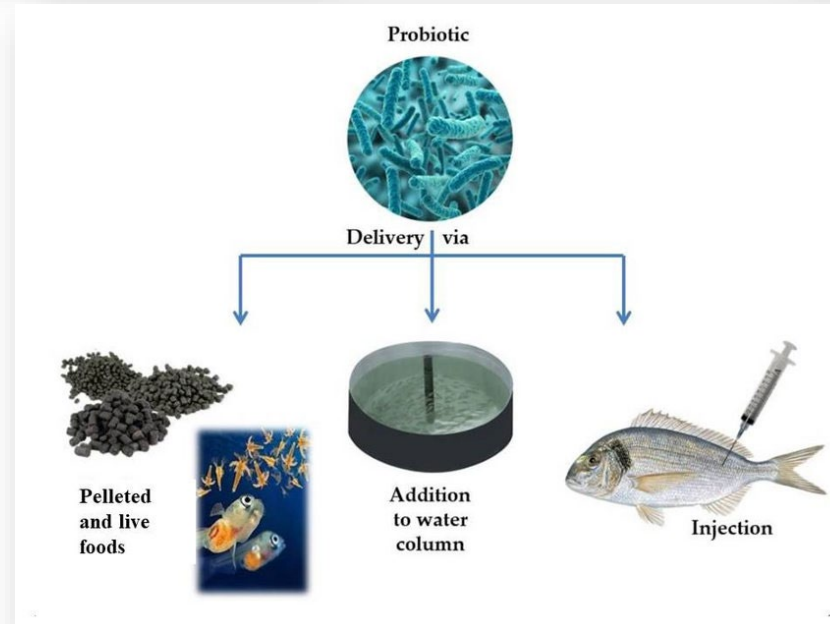
## Improved Fish Growth

Sophisticated feed formulations support better fish growth, thereby increasing yield and boosting efficiency in aquaculture.





# Aquaculture vaccination and medication





# **Veterinary Care Trends for Companion Animals**

# Modern Diagnostic Tools and Techniques

## Imaging Methods

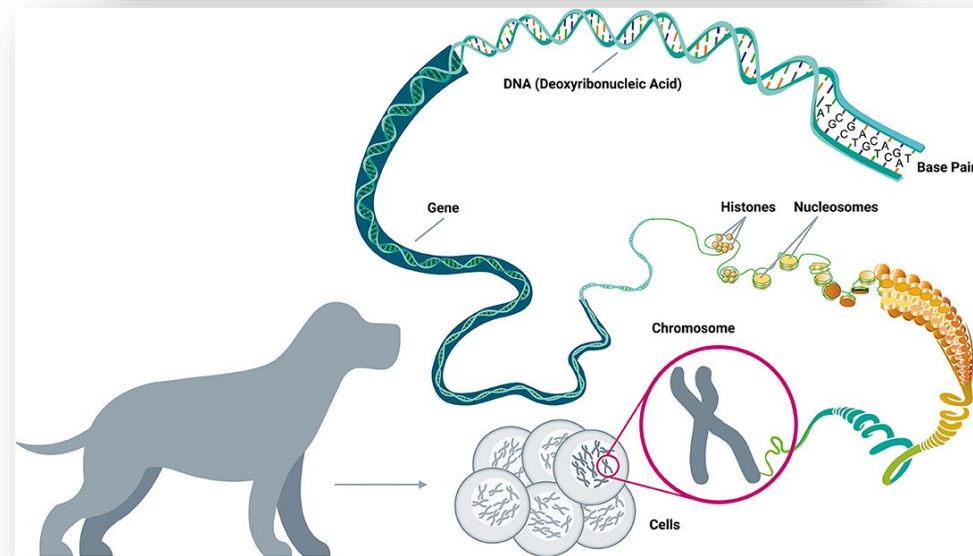
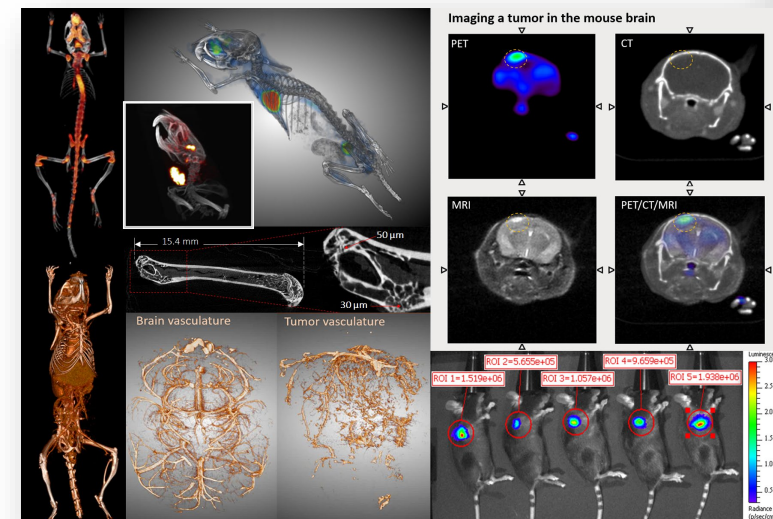
Imaging methods like X-rays, ultrasounds, and MRIs play an essential role in the precise diagnosis of illnesses in animals.

## Biomarker Analysis

Biomarker analysis facilitates the early identification of diseases through the examination of specific biological indicators in companion animals.

## Prompt Disease Identification

Utilizing advanced diagnostic technologies allows veterinarians to identify diseases sooner, leading to better treatment results for pets.







# Advancements in Veterinary Therapies and Treatments



## Biologics in Veterinary Care

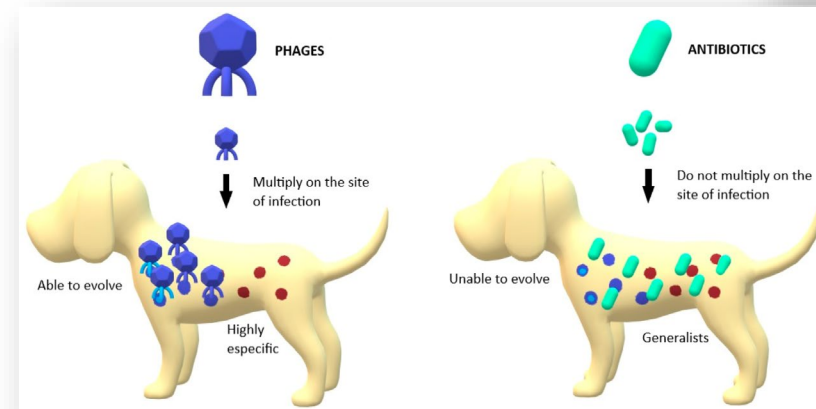
Biologics are a new class of treatments that enhance healing and reduce inflammation in companion animals, offering targeted therapies.

## Minimally Invasive Procedures

Minimally invasive techniques are transforming veterinary medicine, reducing recovery time and discomfort for pets while improving outcomes.

## Improved Animal Care

These advancements are not only making treatments safer but also enhancing the quality of life for companion animals.





# Holistic and Personalized Pet Care

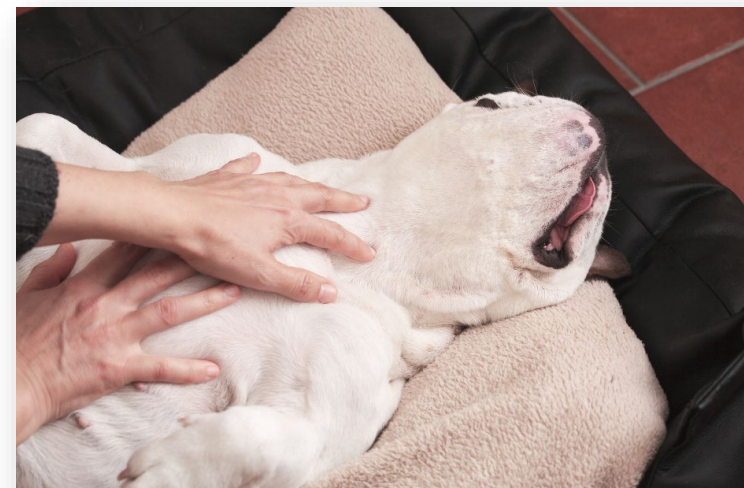


## Holistic Approaches

Holistic methods prioritize the comprehensive well-being of pets, considering their physical, emotional, and social requirements.

## Personalized Care Plans

Customized care plans are designed to address the unique needs of each pet, guaranteeing they receive optimal care.



## Emotional Well-Being

Focusing on emotional well-being is essential for pet health, as it tackles behaviors and feelings that influence their overall quality of life.





An aerial photograph of a large-scale feed mill facility. The facility features several tall, cylindrical metal silos with conical roofs, connected by a complex network of metal walkways and conveyor belts. A long, elevated conveyor system extends across the top of the silos. To the right, there is a smaller, rectangular building with a light-colored roof. The entire complex is situated in a rural area with green fields and a clear blue sky. The text "Animal Nutrition and Feed Mills" is overlaid in the center in a bold, red font with a yellow outline.

# Animal Nutrition and Feed Mills

# Innovations in Feed Production

## Technological Innovations

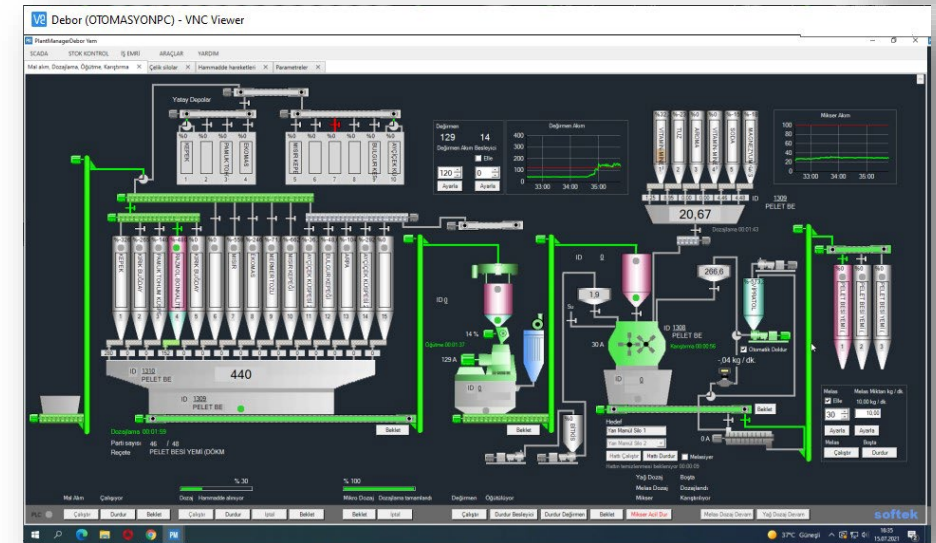
Feed mills are adopting modern technologies to enhance the efficiency of feed production, resulting in improved quality outputs.

## Automation in Feed Production

The automation of processes in feed mills facilitates smoother operations and uniform quality, greatly boosting operational effectiveness.

## Nutritionally Balanced Formulations

Sophisticated mixing methods guarantee that feed formulations are both balanced and nutritious, supporting animal health and growth.





## Significance of Customized Nutrition

Customizing nutrition is essential for improving health and productivity among various animal species, making sure their unique nutritional needs are addressed.

## Progress in Research

Continuous research and advancements in animal nutrition are deepening our comprehension of the distinct dietary needs of different species.



Corn

Alfalfa

Rice bran

Bean cake





# Quality Control and Safety Measures



## Significance of Quality Control

Robust quality control practices are essential for maintaining the safety and reliability of animal feed production.

## Contamination Prevention

Enforcing rigorous quality control measures helps to avoid contamination in animal feed, safeguarding animal well-being.

## Compliance with Regulations

Following regulatory guidelines in quality control guarantees that the animal feed produced satisfies safety standards.



# Ensuring Food Safety in Processing plant



# Technological Advancements in Processing

## Automation in Processing

The use of automation technologies in processing facilities boosts operational efficiency by optimizing production workflows and minimizing labor expenses.



## Traceability Systems

Sophisticated traceability systems promote food safety by monitoring products throughout the supply chain, from manufacturing to distribution.



## Bulk Processing Techniques

Bulk processing methods enable facilities to manage substantial number of chickens effectively, enhancing productivity and cost efficiency.





# Ensuring Food Safety and Quality



## Food Safety Guidelines

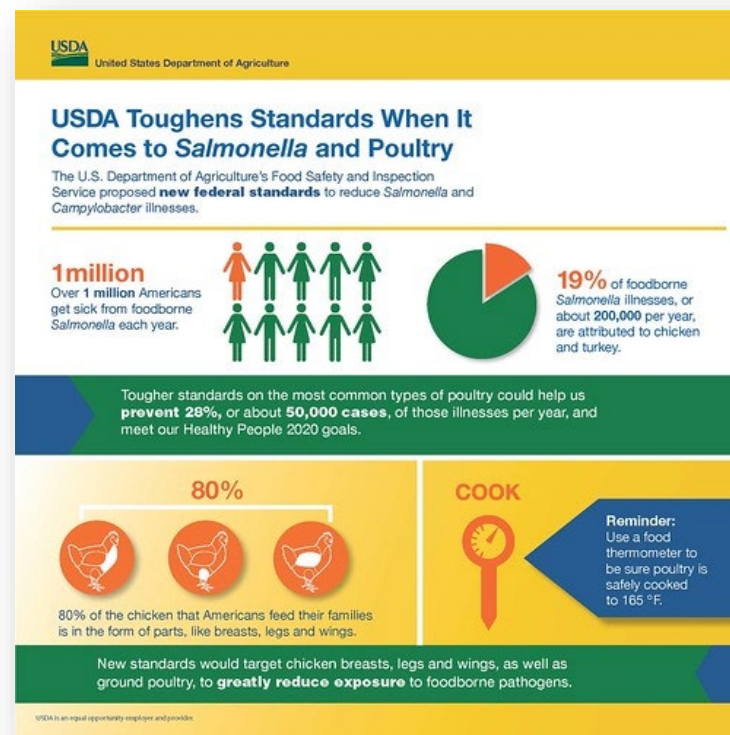
Stringent food safety guidelines are vital for averting foodborne diseases and safeguarding public health.

## Quality Control Practices

Establishing quality control practices guarantees that animal products meet safety regulations and standards.

## Averting Foodborne Diseases

Preventing foodborne diseases is essential for protecting consumers and sustaining confidence in the food supply chain.



# Sustainability in Processing Operations

## Practices for Reducing Waste

Embracing waste reduction practices aids in lessening environmental impact while encouraging effective resource utilization in processing activities.



## Measures for Energy Efficiency

Incorporating energy efficiency strategies in processing facilities decreases energy usage and cuts operational expenses, which is advantageous for both the environment and the business.



## Conservation of the Environment

Sustainable practices play a significant role in environmental conservation by safeguarding natural resources and fostering ecological harmony.



A laboratory technician is shown from the side, working inside a biosafety cabinet. They are wearing a white lab coat, a white hairnet, safety glasses, and a white N95-style face mask. They are also wearing blue gloves. The technician is using a pipette to transfer liquid into a multi-well plate. On the work surface, there is a purple multi-well plate, a red biohazard sharps container, and a white biohazard waste container. The background shows a typical laboratory setting with cabinets and equipment.

# **Veterinary Diagnostic Procedures in Laboratories**

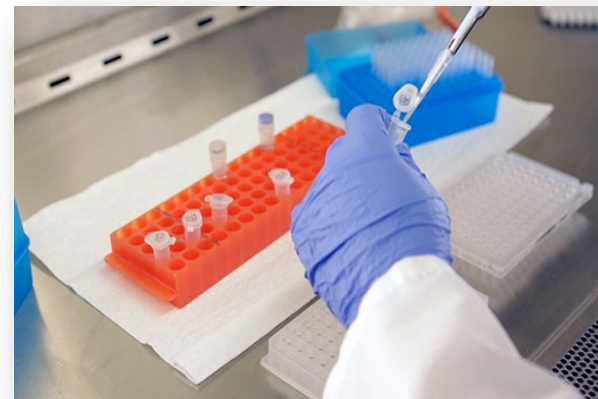


# Modern Diagnostic Tools and Techniques



## PCR Technology

PCR (Polymerase Chain Reaction) is an innovative method that enables the swift amplification of DNA, making it crucial for precise diagnostics.



## Serological Testing

Serological assays are utilized to identify antibodies in the bloodstream, delivering critical insights for diagnosing a range of illnesses.



## Rapid Diagnostic Results

By utilizing these advanced diagnostic methods, laboratories can provide fast and dependable results, assisting veterinary professionals in making prompt decisions.







# Rapid and Accurate Disease Detection



## Cutting-Edge Diagnostic Technologies

Innovative diagnostic tools facilitate quick and precise identification of diseases, leading to improved health results.

## Prompt Interventions

Quick identification permits prompt interventions, greatly enhancing the likelihood of recovery for affected animals.

## Improved Animal Health Management

Early identification and intervention aid in effective animal health management strategies and enhance overall animal welfare.





# Summary



## Evolving Veterinary Practices

The veterinary field is continuously evolving, with new practices enhancing animal care and treatment methods.



## Importance of Innovation

Embracing innovations is vital for improving animal health and welfare while adapting to industry demands.



## Future of Veterinary Field

The future of the veterinary field relies on adopting trends that benefit both animals and veterinary professionals.





## Veterinarian's Oath

*Being admitted to the profession of veterinary medicine, I solemnly swear to use my scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge.*

*I will practice my profession conscientiously, with dignity, and in keeping with the principles of veterinary medical ethics.*

*I accept as a lifelong obligation the continual improvement of my professional knowledge and competence.*

## قسم الطبيب البيطري



بعد قبولي في مهنة الطب البيطري، أقسم رسميًا على استخدام معرفتي ومهاراتي العلمية لصالح المجتمع من خلال حماية صحة الحيوان ورفاهيته، والوقاية من معاناة الحيوان وتخفيفها، والحفاظ على الموارد الحيوانية، وتعزيز الصحة العامة، وتقديم المعرفة الطبية.

سأمارس مهنتي بضمير حي وبكرامة وبما يتفق مع مبادئ أخلاقيات الطب البيطري

أقبل كالترام مدى الحياة بالتحسين المستمر لمعرفتي وكفاءتي المهنية.



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