Maintenance of laboratory animals as per CPCSEA guidelines

1. Housing

Environment: Laboratory animals should be housed in a clean, well-ventilated environment that mimics their natural habitat as closely as possible. This includes maintaining appropriate temperature, humidity, and lighting conditions.

Caging: Cages should be spacious enough to allow for normal movement and behavior. They should be made of materials that are easy to clean and disinfect. The design should prevent escape and minimize injury.

Bedding: Suitable bedding materials, such as wood shavings or paper-based products, should be provided to absorb waste and offer comfort. Bedding should be changed regularly to maintain hygiene.

2. Nutrition

Diet: Animals should be provided with a balanced diet that meets their specific nutritional needs. This includes a mix of proteins, carbohydrates, fats, vitamins, and minerals.

Water: Fresh, clean water should be available at all times. Water bottles or automatic watering systems should be checked daily to ensure they are functioning properly.

Feeding Schedule: Regular feeding schedules should be established to ensure consistent nutrition. Any changes in diet should be introduced gradually to avoid digestive issues.

3. Health Monitoring

Regular Check-ups: Animals should undergo regular health check-ups by trained personnel to monitor for signs of illness or distress. This includes checking for changes in weight, behavior, and physical condition.

Veterinary Care: Access to veterinary care is essential for diagnosing and treating any health issues. Vaccinations and preventive treatments should be administered as needed.

Record Keeping: Detailed records of each animal's health, including any treatments or interventions, should be maintained to track their well-being over time.

4. Environmental Enrichment

Physical Enrichment: Providing objects such as tunnels, wheels, and climbing structures can help stimulate physical activity and prevent boredom.

Social Enrichment: Social animals should be housed in groups to allow for normal social interactions. However, care should be taken to prevent aggression and ensure compatibility.

Sensory Enrichment: Introducing new scents, sounds, and visual stimuli can help keep animals engaged and reduce stress.

5. Handling and Training

Gentle Handling: Animals should be handled gently and with care to minimize stress and prevent injury. Proper techniques should be used to ensure the safety of both the animal and the handler.

Training: Training animals to cooperate with routine procedures, such as weighing or health checks, can reduce stress and improve the efficiency of care.

6. Ethical Considerations

Humane Treatment: All animals should be treated humanely, with respect for their well-being. This includes minimizing pain and distress during experimental procedures.

Compliance with Guidelines: Adherence to institutional and governmental guidelines for the care and use of laboratory animals is essential. This includes obtaining necessary approvals for experimental protocols and ensuring that all personnel are trained in animal care and handling.