

	<p>Laboratory Animal Resources Center</p>	<p>Environmental Enrichment Plan</p>	<p>Date created: 09/23/2011, revised 1/31/2014, 8/7/2017. IACUC approved 11/16/2011, 4/9/2014, 9/13/2017</p> <p>Page 1 of 3</p>
---	---	---	---

“The primary aim of environmental enrichment is to enhance animal well-being by providing animals with sensory and motor stimulation, through structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges according to species-specific characteristics (NRC 1998; Young 2003)” ILAR Guide 2011

The Laboratory Animal Resources Center staff and IACUC recognize the importance of environmental enrichment and social housing to the well-being of confined animals. Improving animals’ psychological well-being likely improves the reliability of the research outcomes. Enrichment strategies are based on attempts to address the expression of species-typical behaviors and allow animals some control over their immediate environments. Veterinarians, managers, animal technicians and investigators all play a role in the development and provision of appropriate enrichment strategies. The IACUC reviews the plan regularly for general outcomes assessment and to ensure that it reflects current knowledge, is beneficial to animal well-being, and is consistent with the goals of animal use.

Goal

The goal of the Environmental Enrichment Plan is to provide adequate social housing environments and enrichment to research and teaching animals to assure their well-being, promote more reliable research outcomes, develop positive human-animal relationships, provide opportunities for animals’ to express a broad range of species-specific behaviors, and prevent monotony which can lead to stereotypic behaviors.

Environmental Enrichment for Rodents and Rabbits

Social Interaction

Social rodents are housed with conspecifics in the same cage whenever possible. Female breeding mice that are part of a triad breeding schedule may be singly housed for several days prior to giving birth. Rodents receive regular positive interaction from research and animal care personnel; these interactions will be slow, quiet, gentle, and steady.

Rabbits are group-housed depending upon age, compatibility, study needs and with attention to AWR space requirements.

Enrichment

Material for nest building is provided in every cage. Transparent, plastic rodent retreats or paper igloo hide outs may also be provided. PVC hideouts and Nylabones are provided to rats.

Rabbits receive plastic toys and toys that make a sound such as chains and bells. Rabbits receive a carrot and hay once a week.

Environmental Enrichment for Swine

Social Interaction

Whenever possible pigs are housed with other pigs in the same room or pen. Compatibility is assessed at housing, as pigs will exhibit a dominance behavior in groups. Individual pigs may be exempted from same pen housing, but whenever possible there is a companion pig in the same holding room. Every attempt is made to ensure that pigs have continuous visual, auditory, and olfactory contact with other pigs while housed in the animal facility. Paired or grouped animals that are temporarily separated due to the performance of a procedure will be re-paired as soon as possible following complete recovery from anesthesia. Pigs receive daily positive interaction from research and/or animal care personnel. These interactions are slow, quiet, and steady. Examples of positive interactions include, feeding treats, back scratches or petting, and talking in a calm and soothing voice. As pigs are social animals the goal is to provide conspecifics for interaction wherever possible.

Enrichment

Enrichment includes chew toys attached to the pen as well as loose toys in the pen. Toys may include Kong toys, Nyla-rings, and balls attached to chains. Hay or sawdust is given to the pigs as a rooting substrate. Pigs exercise in outside runs at least once a day/at least five days a week unless the weather is severely inclement. Soft radio music may be played in the animal rooms during the day.

Environmental Enrichment for Aquatic Species and Reptiles

Social interaction and enrichment for these species is not well established. Social species are housed with conspecifics whenever possible. Appropriate substrate for the species is provided, visual barriers, hideouts, haul-outs, shedding rocks, and shading is provided to all animals as appropriate for the species.

Environmental Enrichment for Agricultural Animals

Social Interaction

Agricultural animals are housed in compatible groups whenever possible. With the understanding that not all social species are socially compatible, some animals must be singly housed or housed with other species, such as the stallion with the cows at the College of Veterinary Medicine. Whenever possible, and especially in the case of singly housed animals, animals are housed in such a way as to have visual, auditory, olfactory, and possibly tactile contact with compatible conspecifics.

Many species, and especially agricultural animals, may benefit from positive human interaction. Animal care staff, researchers and research associates are encouraged to interact with animals on a daily basis. This may include brushing, petting and the provision of food treats.

Enrichment

Enrichment for agricultural animals may include: grazing areas, bales of hay and dirt mounds in enclosures, water troughs and sprinklers, and novel nontoxic vegetation for browsing (example, blackberry vines for camelids).

Environmental Enrichment and Exercise for Dogs and Cats

Social interaction and Exercise

Dogs and cats are housed in compatible groups. For cats each home enclosure must have a raised platform, bench, step, or bed as a resting place sufficient to accommodate all of the animals in the cage at once. LARC dog enclosures open to an outdoor play pen and all adult dogs have a minimum of 30 minutes access to the outdoor area 7-days a week. Dogs, between 3 and 7 months of age, are provided human socialization and handling at least 3-days a week. Animals that are individually housed for medical, behavioral, or IACUC-approved study design reasons, must be provided extra positive human interaction, e.g., petting, playing, walking, grooming.

Enrichment

Each animal has access to a toy, and for cats, a scratching post and hideout are available. The toys are rotated on a regular base to maintain novelty and the interest of the animals. Dogs and cats receive food treats at least 3-times a week.

The LARC staff and IACUC recognize the importance of social housing for social species and environmental enrichment for all species and, as such, enrichment plans are developed as new species are added to the OSU program.

In addition, human interaction for enrichment is conducted with due consideration of the risk of physical injury by animal bites, scratches, or other hazards.

References

Guide for the Care and Use of Agricultural Animals (FASS 2010), Chapter 4 – Environmental Enrichment.

AAALAC FAQ; http://www.aaalac.org/accreditation/faq_landing.cfm

Guide for the Care and Use of Laboratory Animals (ILAR 2011), p 52-54.