The University of Kansas (KU)
Institutional Animal Care and Use Committee (IACUC)

Standard Operating Procedure
Rabbit Enrichment

1.0   Scope and Application

As promulgated in the *Guide for the Care and Use of Laboratory Animals*, the 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. In accordance with the *Guide*, enrichment programs should be reviewed by the IACUC, researchers, and veterinarian on a regular basis to ensure animal well-being and consistency with animal use goals. To ensure conformance with Guide standards, the following program of enrichment for rabbits is established.

2.0   Summary of Method

In-cage enrichment strategy
- Each rabbit is offered hay on a daily basis
- Each rabbit should be offered a small about of fresh produce (not to exceed 4 oz.) at least twice weekly. Uneaten produce should be removed 24 hours after offering. The type of produce should rotate at least every 2 weeks.
- Manipulanda is provided as part of the enrichment program. These items may include but are not limited to durable plastic toys, jingle balls, and hanging rattles.   Toys are rotated on a weekly basis by toy type. Feed, hay, produce, or treats may be placed in toys.
- Any non-disposable items are sanitized at least every two weeks. Disposable items are replaced at cage change or as needed.
- Any change to enrichment or enrichment strategies must be approved by an ACU veterinarian and the principle investigator prior to implementation

In room enrichment
- Audial stimulation may be provided Monday through Friday, to familiarize rabbits with the sound of human voices and activity. This should be set to a moderate or low volume. The sound choices can include talk/news, new age, light pop/jazz/country/classical, or nature recordings. Heavy beats, fast tempos, startling volume changes, or screeching/yelling should be avoided. The sound must be turned off at the end of the work day and must not be left on overnight.

Group/Pair Enrichment
- Rabbits should be assessed for compatibility and housed as pairs or allowed to socialize in groups and pairs whenever possible. Experimental manipulations and/or temperament may make this impossible at some or all times.
- For in-cage and kiddie pool pair housing, rabbits may need to be gradually introduced to each other. The method of introduction and the amount of time needed will be determined by the veterinarian and ACU staff.
- To acclimate to increased activity and to establish relationships between rabbits, limit paired interactions to no more than 30 minutes once weekly for the first two weeks of physical contact.
- Pairs should be monitored for aggression (e.g. chasing, biting, attacking, mounting, threatening, circling)
- If injury of distress secondary to aggression is noted, remove the aggressor and replace it with a different rabbit. Document the non-compatibility in both animals' medical records
- Monitor newly paired rabbits for signs of injury and maladaption (e.g. failure to eat/drink, weight loss, poor health, inactivity, constant hiding)

Schedule in-cage pairing
- Compatible rabbits may be in-cage pair housed during normal working hours and must be separated into their own cages before the end of the work day

Scheduled kiddie pool pairing
- Cover the kiddie pool bottom with appropriate substrate.
- Place two compatible rabbits in the kiddie pool.
- A shelter structure and water should be provided. Enrichment devices, treats, produce, and hay can be provided.
- Animals should be monitored periodically during this time for signs of injury or aggression.
- Animals should be returned to their own cages by the end of the working day.
- Pool should be cleansed and enrichment replaced between uses by different pairs. Uneaten food stuff should be disposed of. Pool should be sanitized at least once monthly.