IACUC POLICIES, PROCEDURES, and GUIDELINES

Housing Enclosure Guidelines

110.1 Purpose

This document establishes the policies of the IACUC regarding housing space requirements and provides guidelines for investigators maintaining animals at the University of Kentucky. Many research and other factors may impact housing space requirements of animals. The intent of this document is to provide guidance to investigators regarding housing space when research requirements do not mandate specific requirements.

110.2 Background

Several regulatory agencies have established requirements and recommendations for housing enclosures. These agencies include: the United States Department of Agriculture through the Animal Welfare Regulations [AWRs] (4), the Public Health Service through the Public Health Service Policy on Humane Care and Use of Laboratory Animals [PHS Policy] (2), the Guide for the Care and Use of Laboratory Animals [ILAR Guide] (1), and the Guide for the Care and Use of Agricultural Animals in Research and Teaching [Ag Guide] (3). Determining which set of regulations or recommendations apply to each situation is based upon the species involved and the intended use of the animal. For animals used in exclusively agricultural research the Ag Guide serves as the primary guidance document. For animals used in biomedical research the ILAR Guide is the primary guidance document. For species regulated under the Animal Welfare Act (4), compliance with the AWRs is mandatory. In situations where there is disagreement regarding which set of requirements applies to the proposed animal use, the IACUC shall make the final determination.

Floor area and enclosure dimensions in both the ILAR Guide and the Ag Guide are recommendations for ensuring animal welfare and both permit alternative arrangements that ensure equivalent or improved outcomes (performance standards). Alternative arrangements may be based on the demonstration or realistic expectation of equivalent performance outcomes or upon scientific necessity to accomplish the experimental or teaching goals. Investigators and units housing animals used in research, teaching, and testing are expected to comply with the applicable regulations and recommendations unless an exception has been documented and approved by the IACUC.
110.3 Space Recommendations

The attached tables are directly from the ILAR Guide and the Ag Guide. These tables are included as a reference source for the types of animals and housing presently in use at the University of Kentucky. While the tables are believed to be accurate, they do not necessarily encompass all possible animal species and housing options at the University and alternative housing arrangements may be considered acceptable by the respective Guides. Please consult the appropriate Guides and regulations for specific requirements and detailed discussions on housing recommendations.

Exceptions to the space recommendations listed in the applicable Guide should be reviewed and approved by the IACUC and be based upon performance indices related to animal well-being and research requirements.


Approved and Adopted by the Institutional Animal Care and Use Committee
March 16, 2005

Amended December 12, 2008

Amended June 18, 2014

Administratively Revised
July 19, 2017
<table>
<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Weight (g)</th>
<th>Floor Area/Animal (in²)</th>
<th>Height (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mice</td>
<td>Group Housing of Compatible Animals</td>
<td></td>
<td></td>
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<tr>
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<td>&lt;10</td>
<td>6</td>
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<td>25-35</td>
<td>15</td>
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<td>35-45*</td>
<td>19</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>&gt;45*</td>
<td>23</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Female + litter</td>
<td></td>
<td>51</td>
<td>5</td>
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</tr>
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<td>Rats</td>
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<td>Female + litter</td>
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<td>80-100</td>
<td>16</td>
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<tr>
<td></td>
<td>&gt;100</td>
<td>≥19</td>
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<td>Guinea Pigs</td>
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<td>350-700</td>
<td>101</td>
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<td></td>
<td>&gt;700*</td>
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* These space requirements were determined by projecting the recommendations for lower weight ranges and are intended to serve as a guideline on space requirements to meet the performance standards as specified in the *ILAR Guide*. 
### Rabbits, Cats, and Dogs

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<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Weight (kg)</th>
<th>Floor Area/Animal (ft²)</th>
<th>Height (in)</th>
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<td>3</td>
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<td>≥5.0</td>
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<td>&gt;30</td>
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* The requirements of the Animal Welfare Regulations (9CFR §3.6-3.8) are dependent upon the dog’s length and differ considerably from the space recommendations in the ILAR Guide. Adherence to the requirements of the Animal Welfare Regulations (9CFR §3.6-3.8) is mandatory.

### Nonhuman Primates

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<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Weight (kg)</th>
<th>Floor Area/Animal (ft²)</th>
<th>Height (in)</th>
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<tbody>
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### Avian Species in Biomedical Research

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<th>Animals</th>
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<th>Weight (kg)</th>
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<th>Height (in)</th>
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<tbody>
<tr>
<td>Pigeons</td>
<td>Individual, Pairs, or Groups</td>
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<td>Quail</td>
<td>Individual, Pairs, or Groups</td>
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<tr>
<td>Chickens</td>
<td>Individual, Pairs, or Groups</td>
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<td>Animals</td>
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<td>≥20</td>
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<td>2-5/enclosure</td>
<td>&lt;25</td>
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<td>&gt;5/enclosure</td>
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### Agricultural Species in Biomedical Research

<table>
<thead>
<tr>
<th>Animals</th>
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<th>Weight (kg)</th>
<th>Floor Area/Animal (ft²)</th>
<th>Height (in)</th>
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### Agricultural Species in Agricultural Research

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<th>Animals</th>
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<th>Animal Description</th>
<th>Floor Area Dimensions (ft)</th>
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</thead>
<tbody>
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<td>Horses &amp; Ponies</td>
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<td>Box Stall Individual Housing - 20 ft²/100 kg</td>
<td>12 x 12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Straight or Tie Stall Individual Housing - 9 ft²/100 kg</td>
<td>5 x 12</td>
</tr>
<tr>
<td></td>
<td>Outdoor Facilities</td>
<td>Run-in Shed per 1000 lb horse; up to 2 horses</td>
<td>11 x 11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outdoor Pen for single horse</td>
<td>12 x 12</td>
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</tbody>
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### Agricultural Species in Agricultural Research

<table>
<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Animal Description</th>
<th>Weight (kg)</th>
<th>Floor Area/ Animal (ft²)</th>
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</thead>
<tbody>
<tr>
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<td>Rams</td>
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<td></td>
<td>Dry Ewes</td>
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<td>12-16</td>
</tr>
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<td></td>
<td>Feeder Lambs</td>
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<td>8-10</td>
</tr>
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<td>2-14</td>
<td>1.5-2.0</td>
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<tr>
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<td></td>
<td>Ewes &amp; Lambs</td>
<td>-</td>
<td>15-20</td>
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<tr>
<td></td>
<td>Slotted Floor</td>
<td>Rams</td>
<td>65-90</td>
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<td>Paved Lot</td>
<td>Rams</td>
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<td>Dry Ewes</td>
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<td>Feeder Lambs</td>
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<td>Lamb Creep Area</td>
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<td>Ewes &amp; Lambs</td>
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<table>
<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Animal Description</th>
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<tbody>
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<td>Pen</td>
<td>Litter and Lactating Sow</td>
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<td>Crate (Sow Portion)</td>
<td>Litter and Lactating Sow</td>
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## Agricultural Species in Agricultural Research

<table>
<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Animal Description</th>
<th>Weight (kg)</th>
<th>Floor Area Dimensions (in)</th>
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<tbody>
<tr>
<td>Dairy Cattle</td>
<td>Free Stall</td>
<td>Dairy Cow 4-6 months</td>
<td>118-182</td>
<td>24 x 48</td>
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<td>Dairy Cow 6-8 months</td>
<td>182-236</td>
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<td>Dairy Cow 8-12 months</td>
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<td>30 x 54-60</td>
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<td>Dairy Cow 12-16 months</td>
<td>327-377</td>
<td>34-36 x 60-66</td>
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<td></td>
<td>Dairy Cow 16-20 months</td>
<td>377-454</td>
<td>36-42 x 66-78</td>
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<td>Dairy Cow 20-24 months</td>
<td>454-500</td>
<td>39 x 72</td>
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<td>Dairy Cow 24-26 months</td>
<td>500-545</td>
<td>42 x 78-84</td>
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<td>Dairy Cow 26-48 months</td>
<td>545-636</td>
<td>45 x 82-84</td>
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<td></td>
<td>Dairy Cow 48-60 months</td>
<td>636-727</td>
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<td>Dairy Cow &gt;60 months</td>
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<td>Tie Stall</td>
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<td>Dairy Cow &gt;60 months</td>
<td>&gt;727</td>
<td>&gt;60 x 72-78</td>
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<tr>
<td></td>
<td></td>
<td>Individual Mature Bulls</td>
<td>54-72 x 97-108</td>
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### Animal Description

<table>
<thead>
<tr>
<th>Animal Description</th>
<th>Housing Arrangement</th>
<th>Floor Area/Animal (ft²)</th>
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<tbody>
<tr>
<td>Individual Calves</td>
<td>Hutches and yard or tether</td>
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<tr>
<td>Calves &lt; 2 mos (&lt;91 kg)</td>
<td>Bedded Pen</td>
<td>24-32</td>
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<tr>
<td>Calves 2-7 mos (&lt;182 kg, 3-12/group)</td>
<td>Stall</td>
<td>10-15</td>
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<td>Moveable Shed plus Yard</td>
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<td>Inside Pen</td>
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<tr>
<td>Individual Mature Bulls</td>
<td>Pens</td>
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<tr>
<td>Milking Cows</td>
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<tr>
<td></td>
<td>Unpaved corrals</td>
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<tr>
<td>Dry Cows &amp; Heifers (&gt;454 kg)</td>
<td>Bedded pack and paved alley</td>
<td>40-96</td>
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</table>
## Agricultural Species in Agricultural Research

<table>
<thead>
<tr>
<th>Animals</th>
<th>Housing Arrangement</th>
<th>Animal Description</th>
<th>Weight (kg)</th>
<th>Floor Area/Animal (ft²)</th>
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<td><strong>Beef Cattle</strong></td>
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<tr>
<td><strong>Open unpaved lot with mound</strong></td>
<td></td>
<td>Calves</td>
<td>180-380</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finishing Cattle</td>
<td>360-545</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bred Heifers</td>
<td>360-455</td>
<td>250</td>
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<tr>
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<td></td>
<td>Cows</td>
<td>455-590</td>
<td>200</td>
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<tr>
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<td>Large Cows</td>
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<tr>
<td></td>
<td></td>
<td>Bulls</td>
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<td>500</td>
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<tr>
<td><strong>Unpaved lot</strong></td>
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<td>Calves</td>
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<td>Finishing Cattle</td>
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<td>Bred Heifers</td>
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<td>Cows</td>
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<td>350</td>
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<td>Large Cows</td>
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<tr>
<td></td>
<td></td>
<td>Bulls</td>
<td>≥680</td>
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<tr>
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<td>Calves</td>
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<td>Bred Heifers</td>
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<td>Cows</td>
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<td>60</td>
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<td>Large Cows</td>
<td>&gt;590</td>
<td>60</td>
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<tr>
<td><strong>Barn, Enclosed- Bedded pack</strong></td>
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## Agricultural Species in Agricultural Research

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<th>Animals</th>
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<th>Age (weeks)</th>
<th>Floor Area Dimensions (in²)</th>
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<th>Floor Area Dimensions (in²)</th>
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<td>216</td>
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