Steps for CO2 Euthanasia of Poultry

You must be trained before you perform this procedure

If you have questions, contact: CMP at 979-845-7433.
For instruction on the safe use of compressed gases, contact EHS: 979-845-2132.

1) Read TAMU-G-028 and check your setup before starting:

<table>
<thead>
<tr>
<th><strong>DO</strong></th>
<th><strong>DON'T</strong></th>
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<tbody>
<tr>
<td>Use a container that allows visualization</td>
<td>Leave animals unattended</td>
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<tr>
<td>Consider a different CO2 euthanasia method for chicks/poults</td>
<td>Overcrowd</td>
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<tr>
<td>Use a pressure-reducing regulator and consider a flow meter</td>
<td>Mix species or incompatible animals in the container</td>
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<tr>
<td>Follow your approved animal use protocol</td>
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2) Prefill methods may be suitable for poultry. The following calculation can also be used. The CO2 flow rate should be **less than 100%** of container volume per minute. The following calculation pertains to cylindrical containers, and “Y” should be less than 1.

\[
\text{CO}_2 \text{ flow rate in L/min} = \frac{\pi \times \text{radius (cm)} \times \text{radius (cm)} \times \text{height (cm)}}{1000} \times \frac{Y}{\text{min}}
\]

Mark the rate on the flow meter and record it here:

Container type: ________________ CO2 flow rate: ____ L/min

Container type: ________________ CO2 flow rate: ____ L/min

3) Place the bird into the container and close it.

4) Open the cylinder valve to release CO2 into the container and adjust the flow to the correct flow rate.

5) Keep the container closed and the CO2 flowing until you see that respiration has ceased. Continue for at least 1 additional minute before closing the valve or flow meter to stop the delivery of CO2.

6) Ensure that animals are dead as per your approved animal use protocol. Follow-up exposure to hypoxemia or a secondary method of euthanasia may be required for chicks/poults.

7) Place the carcass(s) in the appropriate container in the necropsy cooler, or in your facility’s designated carcass disposal location and complete any necessary euthanasia/necropsy logs.

8) Before the next group of animals, refill the container with room air by turning it on its side to let the heavier CO2 flow out. Clean the container, as needed.

9) After the last group of animals, close the cylinder valve. Also, clean and disinfect the container per laboratory/facility SOP (See TAMU-G-026).

10) If the gas cylinder is (almost) empty, make sure that the appropriate personnel have been notified.