



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:

DO	DON'T
<i>Use a container that allows visualization</i>	Leave animals unattended
<i>Consider a different CO₂ euthanasia method for chicks/poults</i>	Overcrowd
<i>Use a pressure-reducing regulator and consider a flow meter</i>	Mix species or incompatible animals in the container
<i>Follow your approved animal use protocol</i>	

- 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

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- 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.