



Euthanasia Alternatives

Euthanasia is one of those topics that can be difficult to discuss, however it is an essential component to any sector of the livestock industry. A well-planned and timely euthanasia program offers producers several advantages for their operations. Timely euthanasia of compromised piglets prevents unnecessary suffering and can reduce costs to the operation. Typically compromised pigs have higher pre-weaning and nursery mortality rates which translate into higher animal care and feed costs, and would experience a substantial reduction in market value as many of these pigs would not be able to achieve the optimal marketing core. Overall welfare of the herd also increases, as timely removal of comprised piglets would provide a greater chance of survival for the remaining piglets.

The most common method of euthanasia (for pigs up to 12lbs) in the Canadian pork industry is blunt force trauma, whereby piglets are struck by a heavy instrument or hard flat surface with sufficient force to cause concussion and irreversible brain damage. While aesthetically not pleasing, research has confirmed this does constitute a humane euthanasia method, as piglets are reliably rendered immediately insensible without return to consciousness.

What would happen if we could find an alternative to blunt force trauma? Current research funded through SwineInnovationPorc explored the development and effectiveness of a non-penetrating captive bolt (Zephyr) for use in piglets up to 9kgs.

What is a Zephyr, How does it Work?

The Zephyr is a modified air gun that incorporates a conically shaped bolt head, with a depression depth of at least 9mm, powered through a portable air compressor. The second component of the system includes the use of portable, collapsible animal restraint sling. Prior to Zephyr application, a piglet would be placed into the animal restraint sling (placing its legs through sling holes), the Zephyr is then placed in contact with the piglet's head and fired twice in rapid succession.

The project successfully demonstrated the Zephyr is an effective and humane method of euthanasia in piglets up to 9 kgs (created immediate insensibility, and consistently inflicted irreversible brain damage), and in addition is seen as significantly more aesthetically acceptable compared to blunt force trauma. Another advantage of the Zephyr, it is effective in piglets up to 9 kgs (20 lbs) whereas blunt force trauma is not recommended for piglets greater than 12 lbs. Selecting a euthanasia method is essential to choose a method that causes the piglet minimal pain and distress while ensuring maximum operator safety. Based on these findings, the Zephyr is an effective euthanasia method which may be preferable to blunt force trauma for euthanasia in piglets.



On-Farm Euthanasia: On-Farm Euthanasia: Recommendations for Producers.

<http://www.prairieswine.com/on-farm-euthanasia-recommendations-for-producers/>

Assessing Euthanasia Methods for Suckling Pigs.

<http://www.prairieswine.com/assessing-the-effectiveness-of-euthanasia-methods-for-suckling-piglets-using-signs-of-sensibility-and-behavioural-indicators>

Written Euthanasia Protocols Required.

<http://www.prairieswine.com/written-euthanasia-protocols-required/>