



## Best Practices Handling Wild Alligator Meat

**A**LLIGATOR MEAT IS GROWING IN POPULARITY; showing up on restaurant menus across the United States. However, meat safety and quality are key elements to a sustainable market. To help harvesters and processors ensure a safe and high quality product, Louisiana Sea Grant researchers analyzed best handling practices to prevent spoilage and extend shelf life.

### RESEARCH

Meat from wild alligators was evaluated to determine how soon it must be chilled — and the best way to chill it—before levels of common food spoilage and pathogen microorganisms spiked and the meat became unsafe. Key findings included:

- No difference in total microbial count and spoilage microorganisms comparing alligators chilled within 1 or 6 hours after caught. At both observation points, total counts and spoilage microorganisms were within acceptable limits.
- Long storage (over 48 hours) of alligators in ice slush can be a source of *Salmonella* to the product.

### CURRENT INDUSTRY PRACTICES

Docks and processors that receive wild alligators generally follow these practices to keep meat in good condition:

- Alligators received within 5 or 6 hours of being caught are placed in ice slush for at least 12 hours.
- Any alligator out of the water for more than 6 hours must be placed in a cooler or in ice by the hunter.
- If alligators are not going to be skinned within 48 hours of receiving at a dock, they should be transferred from ice slush or cooler to a freezer.

### FURTHER STEPS TO MAINTAIN QUALITY

When it comes to processing any animal product, taking the heat out of the meat quickly and effectively is the primary step in keeping the product from spoiling. Also, protecting the skin from direct sunlight exposure will help maintain its integrity and quality. This research has shown a few additional practices to improve quality:

- Covering alligator to protect from direct sunlight to maintain meat and skin quality.
- Get to processing ASAP so the carcass can be iced down.
- Though a proper ice slush is the best way to get the animal cold fast, it could be a source of contamination of *Salmonella*, because of potential drainage of intestinal content to the water. This contamination could be reduced by:
  - Chill in ice slush for 12 hours; once chilled, move carcasses to a cooler for alligators to be processed within 48 hours, or freezer for longer storage.
  - Make sure to use a true 1:1 ratio of ice to water for an effective slush; the carcass is completely submerged.
- If using ice to initially chill the alligator, be sure and get ice around the entire alligator to actually have an impact on internal temperature.
- The use of citric acid at 1% dipping solution after chilling showed a reduction in *Salmonella*.



### Simple steps can help preserve.

Standard good manufacturing practices during the harvest and storage process are key elements for a safe and high-quality meat. Simple steps like rinsing the alligators before chilling, washing hands and equipment regularly, and changing clothes/aprons when dirty, can have a big effect on reducing contamination.

Though total bacteria count and spoilage microorganisms in collected samples were within recommended limits before 18 hours, using the recommended steps to maintain quality can further reduce limits and extend shelf life.



Get more details at:  
<https://www.lafisheriesforward.org/alligator/>

