Slurry Ice and Best Practices for Chilling Fish

Gulf of Maine Research Institute

Every fisherman knows — the faster you chill your catch, the better the quality and the longer the shelf life.

Best Practices for Chilling Fish:

- Cool fish below **40 degrees (F) as quickly as possible**. Even brief temperature abuse reduces quality, shortens shelf life, and lowers the value of the catch. Ensure you have enough ice and consider how you store fish to minimize crushing or bruising.
- **Layering ice** into the catch (e.g. top, middle, bottom) makes a difference, especially in warm weather when it might be harder to chill fish.
- **Use enough ice in spring/fall shoulder seasons (more than you think)**. Processors report seeing dips in quality at these times of year. Fish still need to be chilled to below 40 degrees, despite cool air and water temperatures.
- **Use slurry ice:** A mix of seawater and ice, slurry is one of the best chilling methods available because it cools fish faster and more evenly than ice alone.

Types of ice:

Flake ice is preferred by fishermen in places like Alaska and Iceland because it is least likely to bruise fish. It also cools fish faster through more evenly distributed contact with the fish.

Cubed ice is least preferable because of how it can bruise fish, and its uneven cooling.

Cracked/crushed ice is most available in New England, and it falls in the middle.

Slurry Recipe:

- Start with a watertight, insulated container. Add ice first, then seawater – roughly two parts ice to one part seawater.
- Aim for a thick, pourable consistency, like oatmeal. The goal is for fish to be suspended evenly in the mixture.
- Start heavier on the ice, knowing some will melt. Getting it right is an art.
- You can add up to a cup of salt, which lowers the freezing point.

Other slurry tips:

Slurry should stay between 30-34 degrees F. Check slurry every few hours, especially right after adding fish, to maintain consistent texture and temperature.

Slurry is for rapid chilling, not long-term storage. Whole fish can be stored 24-48 hours, but gutted fish should only be in slurry for 2-4 hours, then stored on ice.

Common mistakes: Adding too much salt can freeze or burn the fish. On the other hand, if the mixture is too watery, fish can soften and start to smell.

This information is based on research done by the Gulf of Maine Research Institute, Cape Cod Commercial Fishermen's Alliance, Maine Coast FIshermen's Association, and processors and fishermen from across New England. For more information, scan the QR code for **a video on slurry ice** and to learn more about this project, visit **gmri.org/quality**.