

- A combination of agitators and compressed oxygen is usually the best approach

Water Temperature Guidelines:

- Temperature affects breathing and heart rate, digestive activity, immune responses
- Smaller fish and shrimp are more sensitive to temperature changes
- Avoid temperature changes of more than 10 degrees
- Temper bait at least 20 minutes for each 10 degree change in temperature
- Lowering temperature for long trips lowers bait activity and oxygen consumption
- ½ pound of ice will lower 1 gallon of water by approximately 10 degrees
- Ice made with chlorinated water should be sealed so bait are not exposed to the chlorine

Disease Issues:

- Disease treatments can be used in hauling or holding tanks when cost-effective
- Avoid over-treating with excessive doses or combinations of chemicals
- Have clean water ready to flush chemicals if bait shows signs of stress
- Tanks and equipment should be dried and/or disinfected between loads
 - Disinfect tanks and equipment with bleach solution (1 tsp bleach/5 gallons water)
- To avoid injury during handling use soft 3/16-inch knotless netting
- Keep bait as wet as possible when transferring with nets
- Avoid handling and netting in windy conditions or direct sunlight

Proper water quality and minimal handling stress can make the difference between healthy, active live bait and heavy mortality

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Transport Guidelines:

- Remove debris and dead animals
- Use holding tanks or cages to purge and/or sort bait
- Provide a resting period in clean, aerated water prior to hauling
- All live bait should be healthy prior to transport
- Have at least 1.5 gallons of hauling capacity for every pound of live bait
- Crowding increases stress, reduces resistance to diseases
- Poor condition before hauling = poor survival during and after transport

Water Chemistry Guidelines:

- Oxygen should be 5 parts per million (ppm) or higher
- Lowering temperature increases the amount of oxygen the water can hold
- Hardness and alkalinity should be between 50 and 100 ppm
 - 1 tsp baking soda in 100 gallons of water = 10 ppm alkalinity
 - 6 tsp calcium chloride in 100 gallons of water = 50 ppm hardness
- Measure salinity and avoid abrupt salinity changes, especially downward changes
- Chlorine should be measured and neutralized with de-chlorinating compounds
- Live bait consumes oxygen and produces ammonia and carbon dioxide. Carbon dioxide can be reduced with aeration, agitation and air circulation. Ammonia cannot be reduced except by water exchange
- Test kits are worth the expense

Water Source Guidelines:

- *For well or tap water*, add salt to match salinity in trapping area
- Neutralize chlorine or chloramine, if necessary
- Aerate tap and well water before use
- *For water from trapping areas*, salinity is usually fine, but the water is often dirty, with higher oxygen demand, and more likely to have bacteria and parasites

Water Aeration Guidelines:

- Oxygen must be supplied faster than the bait uses it
- Low oxygen levels cause breathing to increase
- Oxygen should be measured with a meter or inexpensive test kits
- Agitators or compressed oxygen are aeration options
 - Agitators reduce carbon dioxide build-up but can also damage delicate live bait; they may not supply enough oxygen in some cases