

# Tips for Keeping Bait Alive for Healthy Sale

## **DISSOLVED OXYGEN (D.O.)**

- Ideal range is 6 to 10 parts per million (ppm)
- At no time should it fall below 4 ppm
- Less than 0.5 ppm, death occurs within 10 minutes
- Correct D.O. problems by flushing with clean, aerated water
- Keep bait densities to about 1 pound per 10 gallons of water
- Abrupt lack of activity is the first sign of oxygen-related stress, followed by crowding at the surface and gulping for air

## **Salinity**

- Ideally 5 to 15 part per thousand (ppt)
- Salinity levels should not drop below 2 ppt
- Two pounds of salt in 50 gallons of water is about 5ppt
- Water softener or rock salt can be used
- Iodized table salt should not be used

## **Temperature**

- Ideal temperature range is between 60°-80°F
- Feed consumption and digestion cease between 35°-50°F
- Avoid direct sunlight to minimize unwanted heating
- Cool temperatures favor fungal diseases
- High temperatures (90°F +) increase oxygen demand

## **AMMONIA**

- Is the primary waste product from live bait
- Should not accumulate to levels greater than 1 ppm
- Levels can be decreased by flushing with water that has little or no ammonia
- Causes of high ammonia may include:
  - Overloading systems and filtration units with too many fish/shrimp

- Low alkalinity levels in holding system water (less than 50-100 ppm)
- Inadequate flow rates for replacement water or through biological filters
- Low D.O. levels preventing biological filters from functioning correctly
- Feeding should be reduced or temporarily stopped during high levels

## **Alkalinity**

- Biological filter systems require alkalinity between 100-150 ppm
- Baking soda can be added to maintain levels at or above 100 ppm

## **pH**

- Can usually be maintained at acceptable levels when alkalinity is above 100 ppm
- Abrupt changes can cause stress and occasionally result in death

## **Chlorine**

- Tap water can be detoxified by adding dechlorinating powders or drops. Some use chemicals that also neutralize ammonia

## **NITRITE**

- Usually accumulates during the first few weeks of operation in biofilter systems. Over time, levels should drop and remain below 1 ppm
- Nitrite build-up usually follows high levels of ammonia