



South Hants Koi Club

Koi Health and Welfare

Tranquilisers & Anesthetics

Tranquilisers: Koi which are to be transported over any great distance or for a long time may be tranquilised in their container. This will reduce the metabolic rate of the Koi which in turn helps to prevent the build-up of ammonia waste and reduces the oxygen requirement.

Anaesthetic: An Anesthetic is used to reduce stress on the Koi by reducing its reaction to external stimuli, whilst carrying out sometimes necessary procedures such as detailed examinations, gill swabs, anti-biotic injections, topical dressings or surgical operations. The depth of anesthesia will depend the work being undertaken.

<u>Plane</u>	<u>Description Signs</u>	<u>Agent</u>
1. Tranquilisation	Reduces the metabolic rate of the Koi but the fish must not lose its ability to maintain its normal swimming position.	'Elbagin', etc.
2. Sedation	Reduced reactivity to external stimuli; slight decrease in ventilation	MS222, Benzocaine, etc
3. Light Anesthesia	Partial loss of equilibrium, fish rolls and attempts to right itself. Further decrease in ventilation.	MS222, Benzocaine, etc.
4. Deeper Anesthesia	Total loss of equilibrium; ventilation reduced.	MS222, Benzocaine, etc
5. Surgical Anesthesia	Failure to respond to any external stimuli, ventilation rate slow.	MS222, Benzocaine, etc

- 1. Use of Anesthetics will put your Koi at risk.**
- 2. Starve your Koi 12 – 24 hours before anaesthsing**
- 3. Check the water parameters in the pond before anaesthsing; only proceed if satisfactory.**
- 4. Prepare the anaesthetic solution from pond water from the Koi's environment (ie. Same pH, temperature etc.).**



South Hants Koi Club

5. Before anaesthisng the Koi, prepare:
 - a. All the equipment & medications likely to be used.
 - b. Koi mat & wet towel.
 - c. Resuscitation bowl again using pond water
 - d. Provide air supply to anaesthisng and resuscitation bowls.
 6. Only anesthise the Koi to the minimum 'plane' required depending upon the work being undertaken. Planes 3/ 4 are satisfactory for topical dressing etc. Plane 5 should not be used.
 7. Remember that the Koi will continue to 'go down' deeper once removed from the solution due to the anesthetic in its gills.
 8. Although gill movements and reaction to stimuli are the critical parameters when anaesthisng, use a stopwatch to monitor time.
 9. Once the Koi is anesthised, carry or the work as fast as possible (with, of course, due care) and return the Koi to the resuscitation tank.
 10. Should you need to keep the Koi out of the water for more than 5 minutes, the use of a re-circulation tank should be considered.
 11. Recovery time will be reflected in the time taken to anesthise the Koi.
 12. Observe the Koi continuously whilst it is in the anaesthetic solution noting its gill movements. Different Koi will vary in time to react to the anaesthetic depending upon gill condition etc.
 13. Should the Koi fail to recover when placed in the recovery tank, it can be inverted and gently pushed forward so that the fresh water passes over its gills. Backward and vigorous motion should be avoided.
 14. Even after gill movements have ceased, the Koi's heart beats for a very long time so that resuscitation should be continued for a much longer period than, say, a warm blooded animal.
-