

# Show Rules and Guidelines for One and Two Day Koi Shows within the UK.

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Submitted by the UK Koi Policy Unit.

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## 1. SCOPE

The following Show Rules and Guidelines define best practice for Koi Shows. These Show Rules and Guidelines meet the relevant provisions of the Animal Welfare Acts and give guidance on interpretation of the duty of care owed to the Koi by the organisers, exhibitors and others in the context of Koi shows.

These Show Rules and Guidelines only endorse English Style Koi Shows. This means that every exhibitor has separate vats to hold their Koi throughout the duration of the show. Japanese style Koi Shows, where the Koi in each class are mixed together in a Show Vat are not endorsed.

To comply with Animal Welfare legislation, it is the Show Chairman's responsibility to ensure that every aspect of the show complies with these Show Rules and Guidelines.

All sections of the Rules and Guidelines which relate to Koi health and welfare have been drawn up with the guidance of a Consultant in Fish Medicine and a specialist in water chemistry.

These Show Rules & Guidelines apply to all Koi Shows (Open and closed) and supersede all previous rules.

This document should be read in conjunction with the Benching Code of Practice in appendix D.

## 2. DEFINITIONS

- 2.1 Animal Welfare Acts are the Animal Welfare Acts 2006 Chapter 45 in England and Wales and the Animal Health and Welfare (Scotland) Act 2006 and the Welfare of Animals (N.I.) Act 1972.
- 2.2 The Koi Welfare Team (KWT) are the officials whose responsibility under these Shows Rules is to carry out or to oversee regular analysis of water during Koi shows and to ensure that good water quality is maintained throughout the show until all Koi have been debenched. The KWT must be well informed on water science and experienced in all procedures of a Koi show in order to ensure that the welfare of the Koi is properly addressed. Any existing organisation or society having a body of personnel that are suitably trained and experienced will be able to supply a Koi Welfare Team.
- 2.3 Koi Welfare Officials (KWO) are personnel who may either be members of the Koi Welfare Team or who are appointed by the show organisers. Koi Welfare Officials must be well informed on water science and experienced in all procedures of a Koi show in order to ensure that the welfare of the Koi is properly addressed.
- 2.4 The Aquatic Biological Sciences are well represented at Koi shows. This fact makes such shows unique in comparison to those for other animals and ensures professional expertise is available in the showground should the need arise.
- 2.5 Koi is the abbreviation of Nishikigoi which means brocaded carp and this term does not apply to any other Carp species or subspecies.
- 2.6 A Koi Show is an organised event where several Exhibitors bring their Koi to be judged against one another and to be viewed by other Koi keepers or members of the public.

## Show Rules and Guidelines for One and Two Day Koi Shows

- 2.7 Closed Koi Shows are shows organised either separately or jointly by one or more Koi clubs. Exhibitors must be members of at least one of the organising clubs.
- 2.8 Open Koi Shows are shows organised either separately or jointly by one or more Koi clubs. Exhibitors do not need to be members of the organising club(s).
- 2.9 Photographic Koi Shows are events where the Exhibitor takes or is responsible for the taking of the photograph of the Koi and the photographs are then judged. The Koi do not move from their home pond, therefore the majority of the welfare provisions of these guidelines are not applicable.
- 2.10 The Senior Koi Welfare Officer is the most senior Koi Welfare Officer on duty at the Koi Show.
- 2.11 The Judging Standards Team (JST) is the authority on all aspects of judging standards and criteria and will advise organising clubs on management of Koi Shows. Any existing organisation or society having a body of personnel that are suitably trained and experienced will be able to supply a Judging Standards Team.
- 2.12 A JST Judge is a full member of the JST. The Senior JST Judge is the most senior JST Judge on duty at the Koi Show. Approved Judges are JST Judges and Judges of other overseas bodies who meet JST judging standards and who comply with the JST Code of Practice and who are approved to judge at Koi Shows by a majority vote of the JST.
- 2.13 The Show Chairman is the Chair of the Show Committee and is responsible for the overall organisation co-ordination and management of the show and the person responsible for ensuring these Show Rules and Guidelines are implemented.
- 2.14 The Show Committee is made up of the Show Chairman and other Show Officials who are specialists or selected people responsible for the specific tasks within the organizational framework of the show e.g. Benching, Benching Administration, Water Management, Public Relations, and Vat Allocation and who are responsible for assisting the Show Chairman in ensuring these Guidelines are implemented.
- 2.15 The Exhibitor is the owner of the Koi. The Exhibitor may delegate his/her activities under these Show Rules and Guidelines to an authorised agent but, as owner of the Koi, retains responsibility for ensuring the well being of the Koi at all times.
- 2.16 Benched means when the Koi are accepted into the Koi Show as evidenced by the signing of the show entry form by the Benching Official and Exhibitor.
- 2.17 De-benched means after the Koi Show has finished and the owner takes back responsibility for the Koi as evidenced by the Exhibitor signing the de-benching form.
- 2.18 Dealers are people who sell Koi and this includes their immediate families.
- 2.19 Hobbyists are Koi keepers who do not meet the definition of "Dealer".
- 2.20 The Centre Ring is that area of the showground containing the show vats and Koi handling equipment and having access restricted to Show Officials, Benching Officials Koi Welfare Officials and Judges.

### **3. DUTY OF CARE AND RESPONSIBILITIES**

- 3.1 The final responsibility for the care of Koi accepted into a Koi Show is with the Show Chairman, if necessary the Show Chairman should take advice from the Senior Koi Welfare Officer. Exhibitors are responsible for their Koi prior to acceptance into the Koi Show and continue to hold responsibility for their Koi throughout the Koi Show in conjunction with the Show Officials.
- 3.2 Exhibitors hold full responsibility for their Koi prior to arrival at the show ground. It is the responsibility of all Exhibitors to ensure the well being of their own Koi before and during transportation to and from the Koi Show. Guidelines on bringing Koi to a Koi Show are shown in Section 11. Advice to exhibitors regarding health criteria is in section 9.
- 3.3 The Exhibitor shares responsibility for their fish until benching is completed and must not assume that once their Koi are swimming freely in the Show Vat but prior to completion of benching, that the Koi are accepted into the Koi Show. The Exhibitor must comply with the Show Chairman's decision if a Koi is not accepted into the Koi Show for any reason. Any advice or directions will be dependent upon the individual circumstances and facilities available e.g. to take the Koi home or to put it in a specific vat. In cases where there is no suitable alternative, at the owner's request, assuming it does not compromise the welfare of other Koi and, with the best interests of the affected Koi, a fish in this situation may be left in the show vat but excluded from judging.
- 3.4 As the Exhibitor continues to hold shared responsibility for their Koi throughout the duration of the Koi Show, they must be contactable by the Show Officials at any time whilst their Koi are in the Koi Show, e.g. by mobile phone.
- 3.5 The full responsibility for the care of the Koi is returned to the Exhibitor when the Koi are de-benched, i.e. after the Koi Show has finished and the owner signs the de-benching form.
- 3.6 The Koi Welfare Officer is responsible for advising the Show Chairman and Show Officials on all welfare matters and the maintenance of water quality relating to Koi Shows. The main purpose of the Koi Welfare Officer's attendance at Koi Shows is to ensure best practise for the well-being of the Koi is followed. All Koi Shows are to have at least one Koi Welfare Officer who is contactable or on call at all times whilst there are Koi on the showground. Koi Welfare Officers must, at all times, have access to all areas where there are Koi or water. The Senior Koi Welfare Officer should contact the Show Chairman in advance to discuss preparations, known water parameters and water maintenance procedures to be carried out.
- 3.7 All members of the Aquatic trade attending shows irrespective of whether they are dealers in Koi or the items and services that support Koi are required to obey these rules. Dealers in Koi whether on display or being offered for sale are required to hold a current Pet Shop Licence that pertains to their premises as evidence to the Show Chairman that they are bona fide dealers. Koi may be displayed when no Pet Shop Licence or temporary Licence has been granted for sales to take place on site, or until such time as animal sales are approved for Pet Fairs. Koi dealers should ask the relevant Show Official in advance for water to be available for filling vats and water changes. Adherence to these rules ensures that Koi Welfare Officers and Show Officials will be available if problems arise and they will have the right to require a Dealer to leave the showground in cases where they hold the opinion that a show rule has been breached or Koi welfare as stated in the AWB is being compromised.
- 3.8 The Show Chairman must ensure there are sufficient notices to inform visiting members of the public of their responsibilities relating to the safety and welfare of the Koi on display at the show.

#### **4. SHOW ADMINISTRATION**

- 4.1 The Judges Standards Team (JST) are the authority responsible for judging matters relating to Koi Shows and the JST decisions on matters of judging standards are final.
- 4.2 At each Koi Show, judging decisions are taken by majority vote of the Judges with the Senior Judge having a casting vote. For the avoidance of doubt, in the case of any dispute relating to Judging Standards, the Senior Judge's decision is final.
- 4.3 The Senior Koi Welfare Officer's decision on the health status and well-being of all Koi entered into the Koi Show is final. The Show Chairman should facilitate any action(s) proposed by the KWO as soon as reasonably practical.
- 4.4 In case of violent or abusive behaviours towards any Show Officials or Stewards, the Show Chairman reserves the right to refuse entry into the Koi Show of those persons' Koi or may impose other sanctions on that person that are appropriate to the circumstances. In addition, violent or abusive behaviour by an Exhibitor will result in the JST refusing to judge that Exhibitor's Koi.
- 4.5 The Show Chairman's decision is final on any other matter except those covered in clauses 4.2 and 4.3.
- 4.6 All Koi Shows must have a KWO available to monitor Koi welfare in compliance with the Animal Welfare Acts. In addition consultation with other agencies from the showground is available should the need arise. This does not apply to Photographic Koi Shows or Virtual Internet Shows.
- 4.7 All Koi entered into Koi Shows must be owned by the Exhibitor. The Show Committee must take reasonable steps to ascertain that the Koi is owned by the Exhibitor. In case of uncertainty over ownership of a particular Koi, the Show Chairman's decision on whether to allow the Koi to enter the Koi Show is final.
- 4.8 Exhibitors must be Hobbyists unless there is a Dealers' Class.
- 4.9 Koi entered into Koi Shows by Dealers or members of their household shall be entered into a separate class called the Dealers' Class. If there is no Dealers' Class at the Koi Show then the Koi must be excluded from the Koi Show.
- 4.10 Benching commences when the benching team is assembled and the first Koi is ready for assessment by the benching team. Benching should commence at the designated time notified in advance to Exhibitors.
- 4.11 No Exhibitor may sell Koi from Show Vats at any Koi Show.
- 4.12 All Koi are entered at the owner's risk. Koi Show Officials will endeavour to ensure that the welfare of Koi is not in any way compromised during the Koi Show. No responsibility can be undertaken by the organising club or it's Show Committee for loss or damage.
- 4.13 Sufficient documentation must be available to manage benching, de-benching and judging. To facilitate benching administration, sufficient computers, cameras, film, picture storage, printers, paper and printing ink must be provided.
- 4.14 All results are provisional until the Senior Judge confirms the final decisions to the relevant Show Official at the end of judging.

- 4.15 The organising Show Committee shall at all times provide adequate numbers of Show Stewards to maintain a safe environment for exhibited Koi and visitors to the Koi Show. All Show Stewards and Officials should be easily identifiable e.g. wear identification badges/rosettes or a club/show tee shirt or similar. Centre Ring personnel shall have adequate training and be authorised to enter the Centre Ring by Show Chairman. In particular, sufficient personnel should be available to effect water changes promptly.
- 4.16 The organising Show Committee should provide first aid cover, provide adequate toilet facilities and comply with Health and Safety regulations.
- 4.17 Public liability insurance covering Koi Shows must be obtained by the organising club or any overseeing body taking on the responsibility. A copy of the certificate should be made available on request by any party with a valid interest.

## **5. SHOW SITE AND EQUIPMENT**

### **5.1 Centre Ring**

- 5.1.1 The appropriate number of separate Show Vats must be available for the number of Exhibitors who have confirmed they will bring Koi to the Koi Show. Each Exhibitor should have their own separate vat, however, provided recommended stocking levels are not exceeded, it is acceptable for Exhibitors to share a show vat where the Koi concerned live in the same home pond e.g. where two of the Exhibitors are husband and wife or parent and child. It is recommended that an appropriate number of contingency vats are also provided.
- 5.1.2 Sufficient quantity of equipment including appropriately sized Koi pan nets and inspection bowls, water quality test kits or electronic meters, and pumps and hoses for water changing should be provided to ensure these Rules and Guidelines can be implemented. Additional details can be found in the Benching Code of Practice in appendix D.
- 5.1.3 Appropriate notices advising the public of their responsibilities towards the Koi and reminding Show Officials of their responsibilities should be displayed prominently around the Show Vats. Some examples are below.
- “No smoking, eating or drinking near the vats”
  - “Do not kick, or lean on the vats”
  - “Do not put your hands in the water”
  - “Disinfect hands when entering this area”
  - “Only authorised show officials may enter this area”
- 5.1.4 Show Vats, when containing Koi, should be supervised at all times and the vats and aeration equipment should be checked at regular intervals to ensure the air supply and water levels are maintained.
- 5.1.5 Oxygen or other appropriate aeration facilities should be available to Exhibitors during debenching for bagging their Koi ready for transportation to home.
- 5.1.6 Whilst it is the Exhibitor who is responsible for providing the equipment for transportation of their Koi, the Show Committee should provide a number of spare suitably sized Koi bags and rubber bands for contingency use.
- 5.1.7 Show ring equipment should not come into contact with dealers' vats, water or livestock.

## **5.2 Vats**

- 5.2.1 Although good practice is to ensure that all show vats are cleaned and disinfected before storage after each use, it is recommended that all vats should be cleaned, disinfected and inspected, a minimum of one week before the show so that any defects may be dealt with in a timely manner.
- 5.2.2 Zeolite filters, if used, should be, cleaned, disinfected, and refilled with new zeolite before installation in the vats.
- 5.2.3 Exhibition vats should be free from internal protrusion and sharp edges. It is recommended that show vats are 60cm / 24 inches deep or more.
- 5.2.4 The level of water in show vats should be approximately 35cm / 14 inches for 50cm / 20 inch deep vats and 40cm / 16 inches for all other deeper vats except during water changes.
- 5.2.5 The addition to show vats of salt (to a maximum of 1/2 ounce per gallon) or zeolite, but not both together is permissible. Other additions to vats should be approved in advance by the Koi Welfare Officer. Any additive must be added to all vats and prior to commencement of judging and such additions must be notified in advance and in writing to Exhibitors.
- 5.2.6 Anti-splash screens should be placed in between each vat containing Koi belonging to different owners. It is recommended that these should start from at least 10cm / 4 inches below the top of the vat and reach at least 80 cm / 32 inches above the top of the water level. Additionally their width should be at least 2/3rds of the diameter of the vat. Plastic curtains, suitably fixed to a frame that does not allow them to blow in the wind, are an alternative measure. Whatever barrier method is used, it is recommended that cleaning takes place between each use.
- 5.2.7 Where Koi are retained in vats overnight or at any other time when minimum staff are available to supervise them, vats should be securely covered with appropriate material (e.g. greenhouse shading).
- 5.2.8 In-vat filtration is permissible provided it is the same in all Show Vats.

## **5.3 Aeration Equipment**

- 5.3.1 Appropriate aeration using equipment that produces large volumes of air at low pressures should be provided at all times to any vat where Koi are present in order to maintain adequate dissolved oxygen levels in the water.
- 5.3.2 Air blowers are strongly recommended in preference to compressors.
- 5.3.3 There should be sufficient spares and back up facilities for air and power. Additional aeration equipment should be available to respond to varying weather conditions.
- 5.3.4 It is recommended that all show vats, spare vats and water storage vats are aerated for a minimum of 24 hours prior to the arrival of the first Koi and until all Koi have left the showground.



## 5.4 Biosecurity

5.4.1 Full biosecurity is not possible in a show ground situation. However, all reasonable precautions should be taken to protect all Koi from the risk of cross-infection. The Centre Ring should be arranged so there are a restricted number of controlled entry points with suitable hand disinfectant. Where disinfectant footbaths are used, they should be dosed with a disinfectant / virocidal solution at regular intervals throughout the day according to the manufacturer's instructions. Footbaths must be located so that they can be accessed yet pose no health and safety risks. Additional hand disinfection stations should be placed in other locations in the Centre Ring as appropriate including adjacent to the disinfection and rinse vats.

5.4.2 Disposable paper towels should be provided for hand drying where needed, hand towels should not be used.

5.4.3 Unless separate handling equipment is available for each owner's vats and is kept segregated for the duration of the show, disinfection and rinsing vats must be provided.

Disinfection vats should contain a disinfectant / virocidal solution at the strength, recommended by the manufacturer, suitable to rapidly disinfect nets and other equipment. These vats should be topped up and the strength of the disinfectant / Virocide refreshed at regular intervals as appropriate. Rinse vats should be filled with clean water and contents refreshed daily or more frequently if needed. The vats must be of suitable size for the dipping of bowls, nets and other shared equipment.

Disinfecting and rinsing vats should be arranged in pairs inside the centre ring ensuring that the rinsing vat is within easy reach of the disinfecting vat. At larger Koi Shows, ideally there should be two pairs of vats located at either end of the centre ring, thus minimising the distance to be travelled and reducing the potential for cross-contamination.

The equipment to be disinfected must be dipped in the disinfectant solution for the length of time recommended by the manufacturer. If not needed immediately, the equipment should be left in the rinse vat ready for use.

5.4.4 Care must be taken at all times to ensure that water, from nets and bowls that have not been disinfected and rinsed, does not drip into other vats containing Koi or into reservoir vats used for clean water. Hands and lower arms should also be disinfected.

5.4.5 Any person intending to handle water or Koi must disinfect their hands and lower arms with a suitable hand disinfectant immediately prior to commencing the activity.

5.4.6 Any person coming into contact with water or who have handled Koi, must disinfect their hands and lower arms with a suitable hand disinfectant as soon as the activity is completed.

## 6. HANDLING OF KOI

The movement and handling of Koi should be minimised and carried out within the following guidelines.

- 6.1 All movement of Koi between Show Vats should be done in double, heavy gauge plastic, Koi bags.
- 6.2 Koi in transportation bags should be carried HORIZONTALLY by two people, each using both hands.
- 6.3 Under no circumstances should Koi be moved in small rigid containers from which they may jump.
- 6.4 Under no circumstances should Koi be transferred by hand from vat to vat.
- 6.5 Under no circumstances, should Koi be lifted fully out of the water using a net. Koi should be guided into a bowl in the correct manner as described in the benching procedure in appendix D. Koi may be gently lifted until their back is just out of the water during judging provided that, at all times, the gills are covered with water.

## 7. JUDGING STANDARDS

### 7.1 General Principles

- 7.1.1 Judges are required to act in accordance with their Code of Conduct at all times.
- 7.1.2 Judges on duty at a Koi Show should not be involved in benching to ensure that they do not know who owns the Koi they are later judging. At larger Koi shows, judges who benched the hobbyist classes may judge the dealers' classes and vice versa provided they do not judge classes that they themselves benched.
- 7.1.3 Exhibitors should not take Koi that are not in perfect condition to Koi Shows. If presented for show entry with any minor problem for example, Carp Pox, whilst not significant enough to exclude a Koi from a Koi Show, when judged against others, such Koi will be at a considerable disadvantage.

## 7.2 Sizes, Grand Champion and other Major Prizes

### 7.2.1 Sizes

The approved list of size classifications below should be used at all Open Koi Shows, however, the Show Committee has discretion whether to include a Size 8 class. Closed Koi Shows, which often have smaller numbers of Koi, may combine sizes or adopt their own size criteria and may reallocate major prizes as appropriate to the sizes used.

Size 1:	above 15cm to 25cm
Size 2:	above 25cm to 35cm
Size 3:	above 35cm to 45cm
Size 4:	above 45cm to 55cm
Size 5:	above 55cm to 65cm
Size 6:	above 65cm to 75cm
Size 7:	above 75cm to 85cm
Size 8	above 85cm

7.2.2 Grand Champion is the Best Koi in the Koi Show. This Koi will normally be excluded from winning other prizes in that Koi Show.

### 7.2.3 Suggested major prizes at Koi Shows with Sizes 1-8

Best Baby Koi	Size 1 & 2
Best Young Koi	Size 3 & 4
Best Adult Koi	Size 5 & 6
Best Mature Koi	Size 7 & 8

### 7.2.4 Suggested major Prizes at other Koi Shows with Sizes 1-7

Best Baby Koi	Size 1 & 2
Best Young Koi	Size 3 & 4
Best Adult Koi	Size 5
Best Mature Koi	Size 6 & 7

## 7.3 Standard Classes

7.3.1 Show Committees may offer any additional awards they feel appropriate, subject to the following definitions. Any other awards may be made, subject to satisfactory paperwork being presented to the Judges and time being available. Any non-standard awards, e.g. Friendship Trophies from overseas Koi societies, may be given outside of the JST Judging provided they are "awarded" and not "judged" and award criteria are clearly displayed for the Exhibitors and public.

7.3.2 The Beginner's Prize is for the best Koi of an Exhibitor who has not previously exhibited at any Koi Show. Beginners retain their status until the end of the first Koi Show at which they exhibit.

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- 7.3.3 The Novice's Prize is for the best Koi of an Exhibitor who has not previously been judged to have won any prize at any Koi Show. Novices retain their status until the end of the Koi Show at which they are first judged to have won a prize.
- 7.3.4 The Junior's Prize is for the best Koi of an Exhibitor who, on the day of the Koi Show, is under 18 years of age.
- 7.3.5 A Home Bred Prize is for the best Koi spawned from an Exhibitor's own Koi and raised by that Exhibitor in his own facilities.
- 7.3.6 The Jumbo Prize should be awarded to the longest Koi exhibited. The Benching Officials advise the Judges which Koi was measured to be the longest Koi at benching. This class is designed specifically to attract large Koi not necessarily of high quality. Quality is only an issue when there are two exhibits of equal length.
- 7.3.7 Judges will not judge a Tategoi Class at any Koi Show because it is subjective and open to misinterpretation.
- 7.3.8 The criteria for judging Dealer Classes will be the same as the criteria used for judging hobbyist classes at the same Koi show.

### **7.4 Award of Prizes**

- 7.4.1 Results are provisional until the results are handed by the Senior Judge to the Show Chairman or deputy at the end of Judging.
- 7.4.2 Under no circumstances can a judging decision be changed after the prize has been awarded at prize-giving. In the unlikely event that an Exhibitor is found to have been ineligible to enter the Koi Show, (e.g. a Dealer has entered Hobbyist classes), the relevant awarded prize may be revoked; however, all other prizes stand as awarded at prize-giving.

## 7.5 Benching Varieties

- 7.5.1 The approved list of benching varieties below should be used at all Open Koi Shows. It is recommended that Closed Koi Shows use the same list of benching varieties, however the local Show Committee have discretion to amend classes with prior agreement of the JST.

Kohaku

Sanke

Showa (including Kage Showa)

Utsurimono

Bekko

Tancho - including Gin Rin Tancho

Kin Gin Rin - Go Sanke - (Kohaku, Sanke, Showa). Note: all other Kin Gin Rin to be benched in variety classes, e.g. Gin Rin Hariwake is benched in Hikarimoyo.

Koromo (including Goshiki)

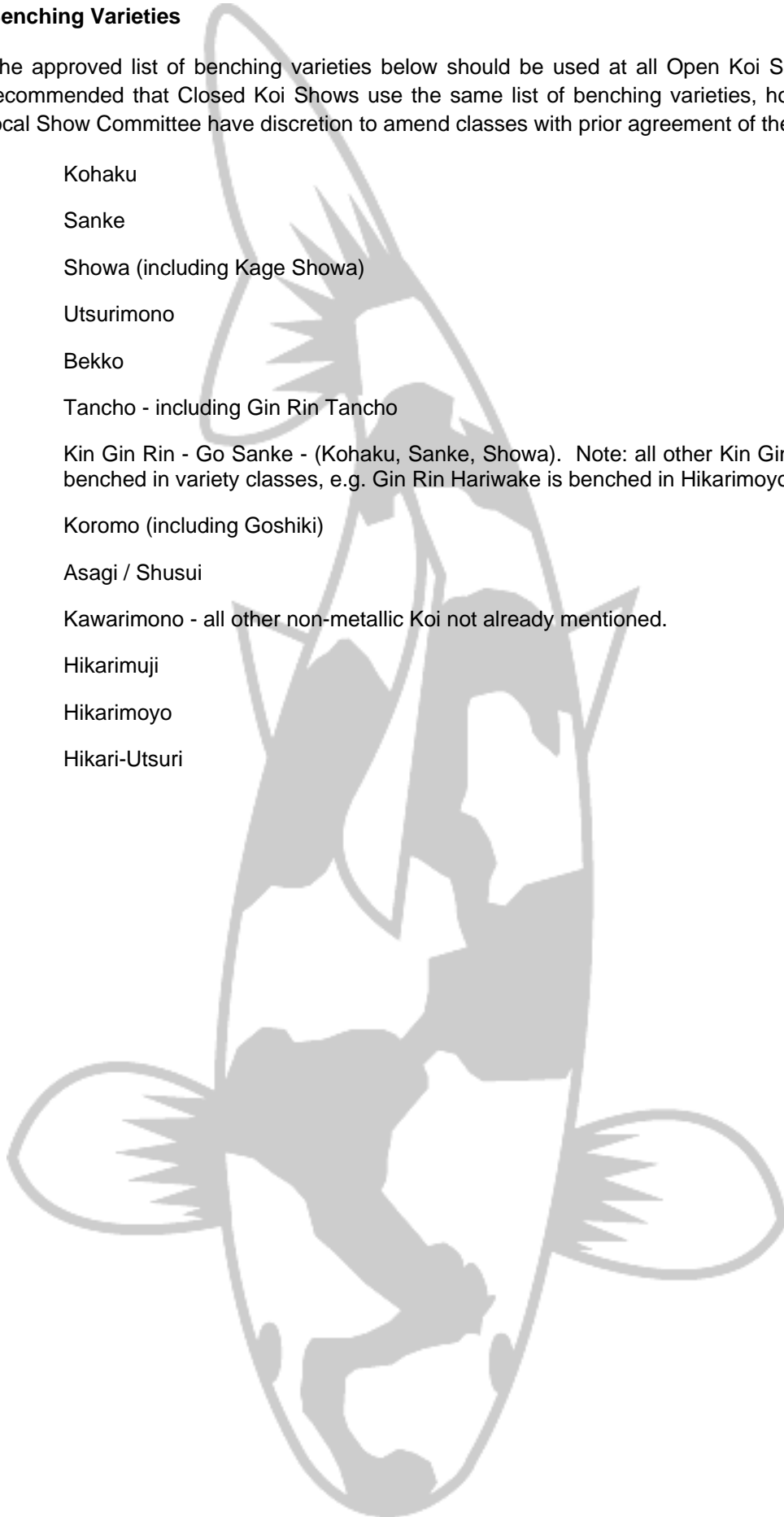
Asagi / Shusui

Kawarimono - all other non-metallic Koi not already mentioned.

Hikarimuji

Hikarimoyo

Hikari-Utsuri



## 8. STOCKING LEVELS IN SHOW VATS

### 8.1 Approved vat stocking levels

Size	Points	Vat size (metres)	Maximum Points per vat	Maximum Fish per vat
1	1	3.0	72	20
2	1.5	2.8	62	17
3	2	2.5	50	14
4	3.5	2.0	32	9
5	6	1.5	18	5
6	9			
7	13			
8	16			

These vat stocking levels assume:-

1. That a water team will be available immediately after a water test indicates that a water change is necessary for any particular vat(s).
2. That sufficient spare dechlorinated water will be available to meet the water change demands.

If both these conditions can be met, vats can be stocked to the indicated levels.

- 8.1.1 If the Show Chairman is uncertain that these requirements can be met, it is recommended that stocking levels be reduced by 25% until historical data or experience has shown that the availability of water and manpower are sufficient.
- 8.1.2 Water changing capability is particularly important where show water pH is 8.0 or higher, when it will be necessary to do a large number of water changes to maintain (total) ammonia levels in the acceptable range as indicated in the table in section 10.2. Where show water pH will be 8.0 or higher, it is recommended that stocking levels in the table above are reduced by 25% until historical data or experience has shown that the availability of water and manpower are sufficient.
- 8.1.3 Overstocking vats is not to be encouraged but sufficient leeway has been built into the system such that it will not be necessary to have fish re-bagged and sent back home again if, during benching, it is found that incorrect estimation of Koi sizes has led to an Exhibitor bringing Koi whose total points allocation slightly breaches the vat allocation. At the discretion of the Show Chairman, extra Koi may remain in the vat until debenching but should be excluded from judging.

## **9 BENCHING HEALTH CRITERIA**

### **9.1 General Issues Relating to Health of Koi submitted for inclusion in Shows**

The advice on selecting Koi and their preparation for travel should ensure that fish arrive at the show ground in peak condition. However, in the unlikely event that a Koi fails the benching criteria for any reason, the fish can be housed in a contingency vat until the end of the Koi show subject to facilities being available. If the proximity of the Exhibitor's home to the showground allows, it may be preferable for the fish to be returned to the home pond.

During the Benching Process if any fish is observed to have any sign from the health assessment list, they should be excluded from the show. Vats are also available for such fish when facilities permit or they may be returned to the home pond.

The Exhibitor of Koi that cannot be benched or are later excluded from the Show should be advised of the reason by the Koi Welfare Officer. Where individual Koi are concerned, the Exhibitor, Show Chairman and KWO can agree the appropriate course of action. In situations where other Exhibitors' fish may be affected, the Exhibitor must comply with the Show Chairman's instructions. In all cases the Exhibitor should be advised to monitor the fish and obtain professional advice if the problem is unresolved after the Koi returns home.

A vat used to hold any disqualified Koi must be disinfected along with all equipment used after the Koi has been removed irrespective of the reason for the isolation of the fish.

Good Koi husbandry must be seen to be paramount for Koi show entry. Some of the signs listed below are indicators of minor health problems in individual Koi. In some cases a problem is highly visual such as an ecto-parasite which will exclude a fish from the show immediately but cases will vary.

The entire body of every Koi is to be observed during benching including the areas not normally visible. This is carried out to prevent Koi being entered into the show and on display that are not in full health and peak condition. The assessment is for show entry qualification purposes only and is not a diagnosis which cannot take place in the showground.

### **9.2 Health Assessment**

During benching, all Koi are assessed using the following list of signs that can indicate a possible health problem. Any signs observed may exclude a Koi from the show even if the reason is minor. Read carefully as some signs still allow Koi to be benched. It must be clearly understood this assessment is not diagnostic, it is visual and is for show qualification purposes only. The decision rests with the Senior Koi Welfare Officer who can exclude any Koi he or she suspects has a sign from the list that could indicate a health problem irrespective of how minor this may be or the overall condition of the fish.

### 9.2.1 General Demeanour

- Inability to maintain equilibrium in the water.
- Lethargy.
- Fins clamped along the side of the body.
- Unresponsive to normal stimuli.

Changes of temperature or pH between the transport bag and the Show Vat and recent transit must be allowed for and a period of 1-2 hours should elapse before making a final assessment as to whether the Koi can enter the show.

#### Body

- Emaciation in which the outline of most of the skeleton is clearly visible through the epithelium (skin).
- Swelling of the whole body.
- Localised areas which are swollen or protrude.
- Protrusion or sinking of the eyes.
- Protrusion of the vent.
- Abnormality in comparison with the normal Koi body shape observed in any part of the body or the fins. For example a bend in the body.

#### Skin

- Parasites visible to the naked eye such as Argulus (fish louse), Lerneia (anchor worm), Piscicola Geometra (fish leech) and Ichthyophthirius multifiliis (white spot).
- Cyprinid Herpes Virus ( CHV ) or carp pox . A low level of carp pox tumours on the body or fins is not regarded as harmful although Koi with a large number of such lesions may be at risk of secondary problems. Such fish are only minimally infective to other Koi and the virus is a common infection. Carp Pox lesions that cover an area greater than one scale anywhere on the body or fins will result in affected Koi being excluded from the Koi show. Koi with a lesser degree of the disease but which members of the public may perceive to be unsightly may also be excluded. .
- Excessive mucus either general or localised.
- Skin swellings such as cysts or tumours whether on or under the skin.
- Areas of fungal infection.
- Hyperaemia – skin redness that is localised or general.
- Raised scales anywhere on the body.
- Skin lesions of any kind such as ulceration, wounds, cuts or injuries.
- A minor injury or abrasion that appears to be very recent in which inflammation is not observed will not exclude the Koi from the Koi Show. Visually, inflammation can be identified as reddened areas.
- Koi that have scar tissue from any type of skin lesion are not to be excluded from the show as long as there is no inflammation and no indication of cosmetic surgery. Visually, inflammation can be identified as reddened areas.
- A minor abrasion seen between mouth and nares due to contact with the transit bag, when the correct position for transportation has not been adopted, may disqualify a fish depending on severity of the abrasion.

#### Vent

- A vent that is excessively red.
- Bleeding from the vent.

#### Eyes

- Bilateral exophthalmoses' (excessively protruding eyes).
- Unilateral exophthalmia (one eye protruding).
- Sunken eyes.
- The cornea of the eye appears to be covered in either mucus or a film.



**Mouth**

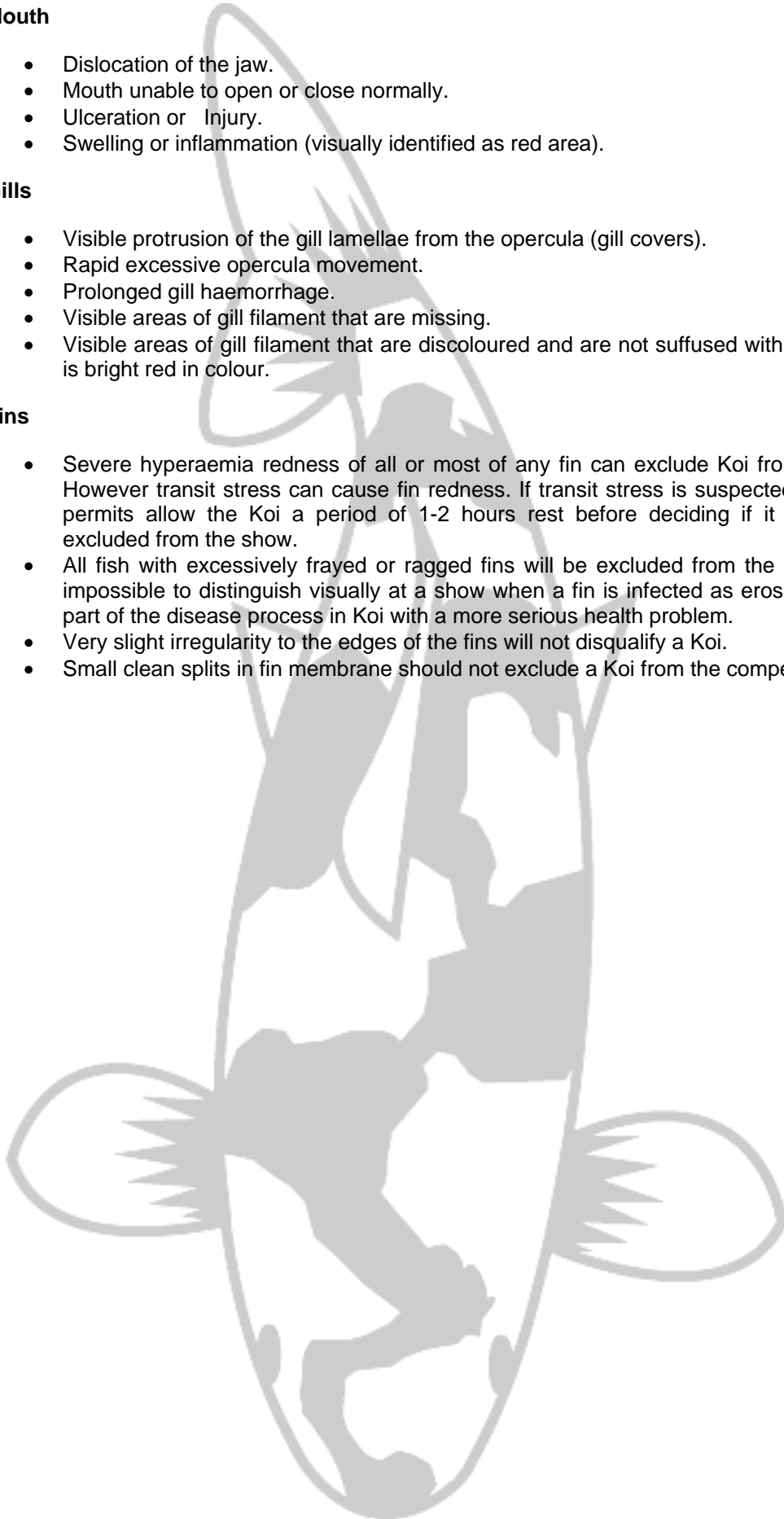
- Dislocation of the jaw.
- Mouth unable to open or close normally.
- Ulceration or Injury.
- Swelling or inflammation (visually identified as red area).

**Gills**

- Visible protrusion of the gill lamellae from the opercula (gill covers).
- Rapid excessive opercula movement.
- Prolonged gill haemorrhage.
- Visible areas of gill filament that are missing.
- Visible areas of gill filament that are discoloured and are not suffused with blood that is bright red in colour.

**Fins**

- Severe hyperaemia redness of all or most of any fin can exclude Koi from a show. However transit stress can cause fin redness. If transit stress is suspected and time permits allow the Koi a period of 1-2 hours rest before deciding if it should be excluded from the show.
- All fish with excessively frayed or ragged fins will be excluded from the show. It is impossible to distinguish visually at a show when a fin is infected as erosion can be part of the disease process in Koi with a more serious health problem.
- Very slight irregularity to the edges of the fins will not disqualify a Koi.
- Small clean splits in fin membrane should not exclude a Koi from the competition.



## 10. WATER QUALITY.

### 10.1 Water test regime

- 10.1.1 It is the responsibility of the Show Chairman to ensure that acceptable water quality, as described in this section, should be maintained in all show and contingency vats, throughout the show.
- 10.1.2 A water quality report must be obtained from the local water authority three weeks before the show.
- 10.1.3 The local water authority should be contacted seven days before the show to ascertain recent or imminent changes to water parameters.
- 10.1.4 The following tests must be carried out prior to filling show vats or spare water storage vats; total ammonia, nitrite, nitrate, pH, free chlorine, total chlorine. Additionally, the local water authority water quality analysis report, (as obtained in 10.1.2), should be consulted to ascertain levels of aluminium, iron and zinc. This is to ensure that the levels of these water parameters are either within acceptable limits, or can be brought within acceptable limits by aeration, filtration, or appropriate chemical treatment, (e.g. dechlorination), prior to the water being used to fill show vats.
- 10.1.5 Measurement for pH is best done after the water has been heavily aerated for several hours since chlorine in tap-water will generally lower the pH and therefore the pH will rise once free chlorine has been removed by aeration. Levels of dissolved carbon dioxide in tap-water are also likely to change after aeration and this will also have an effect on pH.
- 10.1.6 Total chlorine levels measured and quantities of de-chlorinator added should be recorded when spare water storage vats are filled.
- 10.1.7 It is important that no more than the required amount of dechlorinator should be used when dechlorinating spare water. Some manual ammonia test kits can be affected by excessive amounts of dechlorinator. Excess dechlorinator can partially neutralise the first reagent, (which is a form of chlorine), and the kit will indicate **lower** ammonia levels than the true value.
- 10.1.8 Acceptable parameters, (after any appropriate treatment), are:

Parameter	Level	Suggested test method for accuracy
Total ammonia	< 0.02 mg/L	Hanna photometer
Nitrite	< 0.2 mg/L	Hanna photometer
Nitrate	< 300 mg/L	Hanna photometer
pH	Min 7.3- Max 8.5	Hanna photometer or pH meter
Free chlorine	Zero	Hanna photometer
Total chlorine	< 0.02 mg/L	Hanna photometer
Aluminium	< 0.1 mg/L	Supply authority water analysis report
Iron	< 0.03 mg/L	Supply authority water analysis report
Zinc	< 0.03 mg/L	Supply authority water analysis report

- 10.1.9 For water testing purposes during the show, appropriate water test kits and/or electronic water test instruments should be provided. Water testers who are familiar with the use of these kits/instruments should be nominated prior to the Koi show to manage water quality whilst Koi are present on the showground.

## Show Rules and Guidelines for One and Two Day Koi Shows

- 10.1.10 Electronic test meters should be calibrated according to manufacturers' instructions and, where necessary, with relevant solutions provided by the manufacturer prior to the start of the Koi show.
- 10.1.11 The water for use in the Show Vats must be de-chlorinated, if chlorine is found in the water supply, either by passing the water through a dechlorination unit or purifier at the manufacturer's suggested flow rate, or by adding a proprietary de-chlorination product according to the manufacturer's instructions. It is advisable to meter the water into a vat or calculate the volume accurately in order that the correct amount of de-chlorinator is used. (Excessive amounts of dechlorinator can reduce the accuracy of some manual test kits, see 10.1.7).
- 10.1.12 When temperature is measured, it should be recorded to the nearest 1° C. An infra-red non-contact thermometer is recommended for this purpose. These are inexpensive and allow vat temperatures to be rapidly measured without the need for disinfecting between vats or risk of cross contamination. Whichever thermometer is used, unless it has a stated and guaranteed accuracy, it should be tested and compared against a number of similar instruments for comparative results. Under no circumstances should glass thermometers be used in Show vats.
- Water temperature in the show vats should be monitored and all reasonable steps should be taken to minimise changes in water temperature. Should the water temperature in show vats vary by more than 1° C in 2 hours or 5° C in any 24 hours, actions should be implemented to minimise further changes where practical e.g. shading show vats in hot sunny conditions.
- 10.1.13 pH in the show vats should not vary during the course of the Koi show by more than 0.5 on the pH scale (e.g. from pH 7.3 to pH 7.8), with a recommended minimum of pH 7.3 and a maximum of pH 8.5. An electronic pH test meter that can measure to the nearest 0.1 on the pH scale should be used where possible, rather than manual colorimetric test kits, which generally cannot measure variations of 0.2 on the pH scale.
- 10.1.14 Either an electronic meter or manual colorimetric test kit may be used to test water for (total) ammonia throughout the show. The vat water should be tested before Koi are introduced to check for ammonia in the water supply. Electronic meters are recommended as manual colorimetric test kits are less accurate and unable to differentiate the transitional stages up to the recommended maximum total ammonia levels as detailed in section 10.2.
- 10.1.15 Levels of nitrite should not exceed 0.2 mg/L. Electronic meters are recommended as manual colorimetric test kits are less accurate at such low levels. If a manual test kit is to be used, it should be capable of clearly indicating a nitrite level as low as 0.2 mg/L.
- 10.1.16 Dissolved oxygen levels should be maintained above 7.0 mg/L at all times. The dissolved oxygen levels in the vats should be checked as soon as is practical after the vats are uncovered in the morning, then again at the hottest time of the day and also before covering the vats at night. Electronic oxygen meters are accurate and quick to give results, however disinfecting the meters between vats may not be sufficient on hygiene grounds and the membranes can easily be damaged. Where an electronic meter is used to measure oxygen, it is recommended that a sample be taken from the vat by a method that does not compromise hygiene standards and that the oxygen content of the sample is immediately measured away from the vat. The sample should then be discarded. This method will ensure that hygiene standards are preserved without the necessity of disinfecting the probe between successive tests. There are reagent based test kits that provide sufficiently accurate results.

- 10.1.17 All Show Vats should be tested for ammonia, pH and temperature at regular intervals according to a pre-determined schedule, and the appropriate water changes carried out where needed to maintain the ammonia levels below the levels shown in the chart in Section 10.2. Re-testing should be carried out after the water change has been completed to monitor the effectiveness of the intervention. Additional water testing should be performed in vats where Koi seem unsettled and/or where the vat water surface has an oily appearance, or as advised by the KWO.
- 10.1.18 Additional water changes are recommended for purely aesthetic reasons if, for example, the water in a vat should become turbid or lose clarity for any other reason. Water changes to reduce ammonia levels and those for purely aesthetic reasons should be sensibly prioritised so that changes to reduce ammonia are not delayed by changes for aesthetic reasons.
- 10.1.19 A suitable water test regime for ammonia, pH and temperature for a Two Day Show is as follows:-
- Day 0:- Test for ammonia, pH, and temperature 2 hours after the Koi are placed in their individual vats and then test at 3 hourly intervals until covering at night time.
- Day 1:- Test for ammonia, pH, and temperature at 0700 and at 3 hourly intervals. At 1800 make 50% water changes on all vats and cover for the night.
- Day 2:- Test for ammonia, pH, and temperature at 0700 and at 3 hourly intervals until all Koi have been de-benched.
- 10.1.20 When taking water samples from vats, the appropriate bio-security measures should be taken to ensure there is no cross contamination. This can be achieved by individual water sampling equipment for each vat, sample cups that are disinfected and rinsed before re-use or disposable water samplers that are not re-used.
- 10.1.21 In order to maintain acceptable water quality throughout the duration of the Koi show, it is important not to overstock the vats. Guidance on stocking levels is given in Section 8. The values of pH and temperature should be publicly displayed prior to the start of benching and current measurements added at every 3 hourly water tests during the Koi show. All recorded water test results for an individual exhibitor's vat(s) must be provided if requested by that exhibitor.
- 10.1.22 The full record of all tests described in this section, including details of the test kits or equipment used, must be kept by the organising Show Chairman for a minimum of 14 months and a copy provided within 28 days of the end of the Koi Show to any overseeing organisation or society to be retained in their Show Water Quality Records Archive.

**10.2 Table for the maximum allowable value of total ammonia in unfiltered show vats at two day Koi shows.**

(This table is NOT for filtered Koi ponds. A table for filtered Koi ponds is in appendix A)

**Temperature °C**

	10	12	14	16	18	20	22	24	26	28	30
7.0	10.5	9.52	8.00	6.90	5.88	5.00	4.44	3.85	3.45	2.94	2.50
7.1	8.70	7.40	6.25	5.41	4.76	4.00	3.51	3.03	2.70	2.38	2.00
7.2	6.90	5.88	5.00	4.35	3.77	3.17	2.82	2.41	2.17	1.89	1.59
7.3	5.41	4.65	3.92	3.45	2.99	2.53	2.22	1.92	1.72	1.49	1.27
7.4	4.26	3.70	3.13	2.74	2.38	2.02	1.77	1.54	1.37	1.19	1.01
7.5	3.39	2.94	2.50	2.17	1.89	1.61	1.41	1.23	1.09	0.94	0.81
7.6	2.70	2.35	2.00	1.72	1.50	1.28	1.12	0.98	0.86	0.75	0.64
7.7	2.17	1.87	1.59	1.38	1.20	1.02	0.90	0.78	0.69	0.60	0.51
7.8	1.72	1.48	1.27	1.10	0.96	0.82	0.72	0.59	0.55	0.50	0.50
7.9	1.37	1.18	1.01	0.87	0.76	0.65	0.57	0.50	0.50	0.50	0.50
8.0	1.09	0.94	0.81	0.70	0.61	0.52	0.50	0.50	0.50	0.50	0.50
8.1	0.87	0.75	0.64	0.56	0.50	0.50	0.50	0.50	0.50	0.50	0.50
8.2	0.70	0.60	0.52	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
8.3	0.56	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
8.4	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
8.5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Ammonia is a waste product that is continuously excreted by Koi, (and other fish species), into their environment where it splits into two forms, free ammonia (NH<sub>3</sub>) and ionised ammonia (NH<sub>4</sub>). The proportion of each is dependent on the water pH and temperature. Ionised ammonia is relatively non-toxic to Koi. Low levels of free ammonia are tolerated but best practice in Koi keeping is to prevent it from building up to harmful levels.

Typical electronic test meters and manual test kits cannot distinguish between the two forms, they only measure total ammonia which, as the name implies, is the combined total of the two.

This table has been calculated for unfiltered Koi show vats and has been derived from the standard ammonia table for biologically filtered ponds in Appendix A to represent the different conditions

existing at two day Koi shows where the display vats are usually unfiltered. If the results from the (total) ammonia tests are maintained below the value indicated at the intersection of the appropriate pH and temperature, there will be no threat to the welfare of Koi in that show.

It should be emphasised that the values in either table are **not** target values. All reasonable attempts should be made to ensure that total ammonia levels are maintained at the lowest achievable value, whether at Koi shows or in the home pond.

10.2.1 Water changes, either at 25% or 50% rates, are the most practical primary means of controlling ammonia levels in Koi show vats. Where possible, water changes should be implemented as a proactive means to prevent ammonia levels reaching the values in the table rather than retrospectively to reduce a high level.

10.2.2 Zeolite can be used as an effective means to remove ammonia spikes caused by initial ammonia dumping after Koi have been released from their travel bags, but it has limited effect after that as it soon becomes "full". Zeolite should not be used if salt is also added to display vats.

10.2.3 In addition, high levels of aeration will help reduce ammonia levels by a process known as "gassing off".

## **11. ADVICE TO EXHIBITORS**

11.1. It is strongly recommended that the Show Committee provides, to exhibitors, copies of the advice below and of the Benching Health Criteria (Section 9) well in advance of the show date in order that they may correctly assess the health of their fish and prepare them for the show.

### **11.2 General**

11.2.1 The Exhibitor maintains full or joint responsibility for the care of their Koi for the duration of the Koi Show. From the time when their Koi are accepted into the Koi Show and until after the Koi Show has finished and the owner signs the de-benching form, the Show Committee must be able to contact the Exhibitor at all times, e.g. by mobile phone.

11.2.2 During benching, Koi will be examined all over the body including the areas not normally visible when in their home pond. In order to prevent Koi that are not in perfect health being transported to Koi Shows, and to ensure that only healthy Koi are displayed at the show, the Exhibitor should check for any signs that may worsen during transit or exclude the fish from competing before bringing the Koi to the Show. If there are any signs or any doubt that the Koi is in good health, then do not bring the Koi to the Koi Show. Health standards for Koi that are to be entered into Koi Shows is in Section 9 – Benching Health Criteria, rule 9.2.

11.2.3 These rules actively discourage Koi being subjected to any procedure that is purely for cosmetic purposes e.g. removal of shimmi's (Japanese spelling of shimmies). However, we acknowledge that some scar tissue can be the result of disease or surgery for health reasons. Koi with the visible indications of having had cosmetic surgery or trimming of the fins or rounding of the Tancho spot will be excluded from the Koi Show.

### **11.3 Advance preparation for Koi Show**

11.3.1 All Koi intended for show entry must have been resident in the home pond for a minimum period of one month, or been housed by an appointed keeper for a minimum period of one month.

11.3.2 It is recommended that Koi are rested for as long a period as possible between shows and this should be a minimum of 30 days to avoid any stress related health problems developing.

11.3.3 All Koi should be observed for several days prior to the show to ensure that their behaviour and swimming pattern is completely normal. The Koi must be in good health with no visual signs that may affect them qualifying for show entry. The health assessment list for use during benching at the show can be used as a guide (see 9.2).

#### **11.4 In the week before the Koi Show.**

11.4.1 The Koi should not be fed by the Koi Keeper for 5 days prior to travelling to the Koi Show. There is sufficient natural food in the pond to sustain them. This precaution will help to minimise ammonia in the transport bags and significantly reduce the need for water changes due to raised ammonia levels in your Show Vat.

11.4.2 Well in advance of the actual show day, collect all of the equipment required i.e. suitable sized nets, containers and bags for the size of the Koi concerned and extra bags to be taken in case of leaks etc, plenty of spare elastic bands and, if required, a handling sock net and oxygen supply. The Koi should be doubled bagged to reduce the possibility of leakage and damage during transit and the bags secured with elastic bands. Sticky tape or cable ties should not be used to secure the bags containing water and Koi.

11.4.3 Exhibitors should ensure that their Koi will not be overcrowded in the transit bags, 1 Koi to 1 bag is recommended for Koi of 35cm or more.

#### **11.5 Day of transportation**

11.5.1 When catching Koi, they should be closely examined prior to bagging to ensure they are in good condition. The health assessment (see 9.2) that will later be used during benching at the show can be used as a guide. Smaller sizes of Koi may be easier to check by placing the Koi in a bag and lifting it up in order to view its underside. If at the end of the checks there is any doubt as to the suitability of a particular Koi to fulfil the requirements for entry into a Koi Show, then do not bring that Koi to the Koi Show.

11.5.2 When the Koi is placed into the bag, the water level must cover the gills, and be from the pond where the Koi is normally kept. The bag should then be filled with oxygen to maintain levels of dissolved oxygen in the water during transportation. If oxygen is not available then use an airline, (without air-stone), from your air pump to fill the bag. Do not blow into the bag to inflate as exhaled air is already lower in oxygen than fresh air.

11.5.3 The bagged Koi should be placed into a suitable container and light excluded where possible (e.g. cardboard container with the lid closed). The bagged Koi should then be carefully placed into the vehicle to minimise potential movement during transit, wherever possible, this means placing the box parallel to the vehicle axle so should the vehicle have to brake suddenly, the Koi will roll from side to side rather than front to back. This placement recommendation does not apply to a bag that contains small Koi that can turn freely and adopt a safe travelling position within the bag.

11.5.4 Transporting Koi to and from Koi shows in vats carried in vans or on trailers is allowable if the vat has been specifically designed to protect the fish from the uncontrolled splashing around of water inside the vat when accelerating, braking and steering.

11.5.5 Exhibitors must stay with their Koi until they have been benched and signed for by the Benching Officials and the Exhibitor has confirmed to the Benching Officials a telephone contact number where they can be contacted in case of emergencies.

**Appendix A**

**Maximum allowable value of total ammonia for biologically filtered systems**

Temperature °C

	10	12	14	16	18	20	22	24	26	28	30
<b>7.0</b>	10.5	9.52	8.00	6.90	5.88	5.00	4.44	3.85	3.45	2.94	2.50
<b>7.1</b>	8.70	7.40	6.25	5.41	4.76	4.00	3.51	3.03	2.70	2.38	2.00
<b>7.2</b>	6.90	5.88	5.00	4.35	3.77	3.17	2.82	2.41	2.17	1.89	1.59
<b>7.3</b>	5.41	4.65	3.92	3.45	2.99	2.53	2.22	1.92	1.72	1.49	1.27
<b>7.4</b>	4.26	3.70	3.13	2.74	2.38	2.02	1.77	1.54	1.37	1.19	1.01
<b>7.5</b>	3.39	2.94	2.50	2.17	1.89	1.61	1.41	1.23	1.09	0.94	0.81
<b>7.6</b>	2.70	2.35	2.00	1.72	1.50	1.28	1.12	0.98	0.86	0.75	0.64
<b>7.7</b>	2.17	1.87	1.59	1.38	1.20	1.02	0.90	0.78	0.69	0.60	0.51
<b>7.8</b>	1.72	1.48	1.27	1.10	0.96	0.82	0.72	0.59	0.55	0.48	0.41
<b>7.9</b>	1.37	1.18	1.01	0.87	0.76	0.65	0.57	0.50	0.44	0.38	0.33
<b>8.0</b>	1.09	0.94	0.81	0.70	0.61	0.52	0.46	0.40	0.35	0.30	0.26
<b>8.1</b>	0.87	0.75	0.64	0.56	0.49	0.42	0.37	0.32	0.28	0.24	0.21
<b>8.2</b>	0.70	0.60	0.52	0.45	0.39	0.34	0.30	0.26	0.22	0.20	0.17
<b>8.3</b>	0.56	0.48	0.41	0.36	0.32	0.27	0.24	0.21	0.18	0.16	0.14
<b>8.4</b>	0.45	0.39	0.33	0.29	0.26	0.22	0.20	0.17	0.15	0.13	0.11
<b>8.5</b>	0.36	0.31	0.27	0.23	0.20	0.18	0.16	0.14	0.12	0.10	0.09

Ammonia is a waste product that is continuously excreted by Koi (and other fish species) into their environment where it splits into two forms, free ammonia (NH<sub>3</sub>) and ionised ammonia (NH<sub>4</sub>). The proportion of each is dependent on the water pH and temperature. Free ammonia is toxic to Koi, ionised ammonia is relatively non-toxic.

Typical electronic and manual test kits cannot distinguish between the two forms, they only measure total ammonia which, as the name implies, is the combined total of the two. Low levels of free ammonia are tolerated and best practice in Koi keeping is to prevent it from building up to harmful levels.

This table has been calculated for recirculating (filtered) systems. In a filtered system, the value of total ammonia, as indicated by test meters and kits, should be kept below the value shown in the table where the pond pH and temperature intersect. If total ammonia is maintained below this value, the free ammonia level will not pose a threat to the welfare of the fish in that pond.



## Show Rules and Guidelines for One and Two Day Koi Shows

It should be emphasised that the values in either table are **not** target values. All reasonable attempts should be made to ensure that total ammonia levels are maintained at the lowest achievable value, whether at Koi shows or in the home pond.

A suitable table for use at two day Koi shows is in section 10 - Water Quality, rule 10.2.



**Appendix B**

**Guidelines for show vat aeration**

To be read in conjunction with Water Quality Rule 10.1.16

**Saturation values of oxygen in fresh water at sea level**

(Maximum level of oxygen a pond can hold)

1	Temperature °C	0	5	10	15	20	25	30
2	Oxygen mg/L	14.6	12.8	11.3	10.1	9.1	8.2	7.5

Rule 10.1.16 defines the minimum acceptable level of dissolved oxygen in a show vat as 7.0 mg/L. In practice higher values are better. Warmer water can hold less oxygen than cooler water and the table shows the saturation values of oxygen in fresh water at a range of temperatures, i.e. the maximum amount of oxygen that the water can hold at that temperature. Normal means of aeration, such as air-stones, will not increase the dissolved oxygen content of vat water above these levels regardless of how many extra air-stones are added.

The values in the table should be considered as the target values for dissolved oxygen in show vats. It will be difficult to reach 100% of these saturation values but as near as is possible should be the aim. For example 85% of the saturation value should be achievable, and extra aeration should be considered if the actual measured value is less than 80% of the table value.

By ensuring the highest dissolved oxygen value that is achievable, there will be a reservoir of dissolved oxygen in the vat water so that Koi welfare will not be jeopardised if there is a temporary interruption to the aeration such as a short power cut or if the air-stones are temporarily removed to facilitate judging or photography.

During judging or for photography purposes, it is acceptable for air-stones to be lifted and held just above water level to allow better visibility of the Koi. This must only be done by designated personnel who have the Show Chairman's permission to do so. Such personnel should be aware that careful attention should be paid to ensuring that air-stones are not lifted in such a manner that there is a risk that fine water droplets will be sprayed into other vats and that air-stones should not be removed for any longer than is necessary. Under no circumstances should air-stones be lifted from the vat and left on the ground. Air lines to air-stones should be positioned where they are inaccessible to the public to ensure that only designated personnel can remove air-stones.

The more highly the vat water is aerated, the more ammonia will be "gassed off", and the more carbon dioxide will be removed from the water. Reduction of ammonia is always desirable and removing carbon dioxide will help stabilise the pH by preventing downward variations.

The oxygen saturation table is for fresh water only. Adding salt to vat water will result in the water being unable to hold as much oxygen as in the table but this reduction will not be great for all normal dose rates of salt.

## **Appendix C**

### **Using Photometers to measure ammonia levels at Koi shows**

The most accurate way to measure (total) ammonia levels in the home pond or at koi shows is with a photometer such as the Hanna HI-83203-02 Aquaculture Bench Photometer and the most accurate results will be achieved using the method described in the manufacturer's manual. In essence this process consists of:

Filling the measuring cuvette with a water sample.  
"Zeroing" the meter with this sample.  
Adding reagents to the sample.  
Waiting for the reagents to develop.  
Measuring the developed sample to determine the (total) ammonia level.

Depending on the speed of the operator, this method takes about five minutes per sample and is the method recommended for water parameter tests at the home pond or at smaller koi shows.

At larger koi shows with 20 or more display vats, the cumulative time taken to employ this method may delay the testing and water changing process. There is a much faster way to use the Hanna, whereby samples are not individually "zeroed", but instead, a sample of clean water from the spare water reservoirs is used to "zero" the machine at the start of each round of water tests. All vat water samples are then tested against this sample of water. The ideal situation in a koi show would be for the water in each vat to be kept, throughout the show, in the same condition as it was before fish were introduced and this method has the advantage that each water sample is compared against this sample of *optimum water*.

This method has been approved by Hanna Instruments' technical department, and also by an independent leading water scientist in the koi world, provided two conditions are carefully observed.

1. Six cuvettes are required for this method and each cuvette must be identically clean and must not be scratched or otherwise damaged.
2. When collecting water samples, the water testers should look at the water in the vat and ensure that there is no noticeable difference in turbidity or colouration between it and the water in the spare water reservoirs. If there is no noticeable turbidity when looking down through the depth of water in a display vat, (at least 350 mm), any difference due to turbidity, when the Hanna "looks through" a sample of 15 mm will be insignificant. In addition, any small inaccuracy that may be introduced can only ever over-estimate the ammonia reading, it can never under-estimate it. For example, if the true (total) ammonia level was 0.22 mg/L, at worst, this method might report the reading as 0.23, 0.24 or even 0.25 mg/L; this is still far more accurate than the accuracy of any manual test kit currently available.

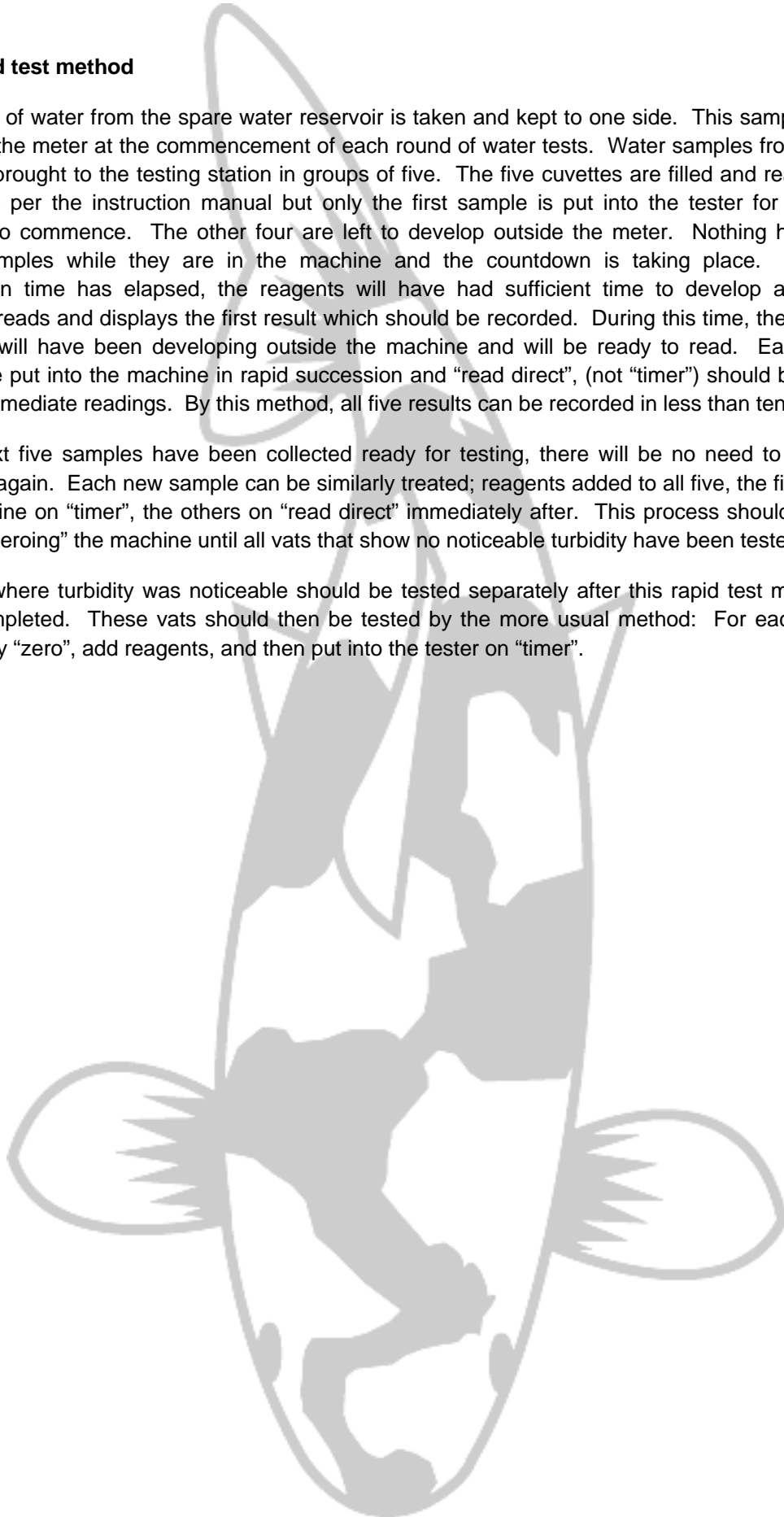
If any vat has a noticeable degree of turbidity, it should be excluded from the following rapid test method and tested separately by the more usual method shown in the manufacturer's manual.

### The rapid test method

A sample of water from the spare water reservoir is taken and kept to one side. This sample is used to “zero” the meter at the commencement of each round of water tests. Water samples from the vats are now brought to the testing station in groups of five. The five cuvettes are filled and reagents are added as per the instruction manual but only the first sample is put into the tester for the timing process to commence. The other four are left to develop outside the meter. Nothing happens to water samples while they are in the machine and the countdown is taking place. When the countdown time has elapsed, the reagents will have had sufficient time to develop and so the machine reads and displays the first result which should be recorded. During this time, the other four samples will have been developing outside the machine and will be ready to read. Each sample should be put into the machine in rapid succession and “read direct”, (not “timer”) should be pressed to give immediate readings. By this method, all five results can be recorded in less than ten minutes.

If the next five samples have been collected ready for testing, there will be no need to “zero” the machine again. Each new sample can be similarly treated; reagents added to all five, the first put into the machine on “timer”, the others on “read direct” immediately after. This process should continue, without “zeroing” the machine until all vats that show no noticeable turbidity have been tested.

Any vat where turbidity was noticeable should be tested separately after this rapid test method has been completed. These vats should then be tested by the more usual method: For each sample, separately “zero”, add reagents, and then put into the tester on “timer”.



## **Appendix D**

### **Benching and debenching procedure**

#### **Scope**

This document defines good practice in managing the benching, movement and debenching of Koi at Koi shows and it should be read in conjunction with the accompanying Show Rules and Guidelines for Two Day Koi Shows. It covers the time from when the owner announces the arrival of the Koi at the show ring to the departure of the Koi from the show ring.

#### **Personnel**

The benching of Koi at a show involves two teams of people. The first team known as the ADMINISTRATION TEAM is involved with the paperwork side of the show entries. The second team is known as the HANDLING TEAM and deals with all aspects of the physical handling and moving of Koi. The roles described below can be performed by any number of people except where specific guidance is given. A DEBENCHING TEAM will be required after the show, and will often be the same as the Handling Team. It is recommended that one person, the Head Bencher, is made responsible for managing all members of the Administration, Handling and Debenching teams, collectively called the Benching Team.

All personnel must be competent to undertake the tasks assigned to them and those actually handling Koi experienced in doing so.

#### **Administration Team**

The roles within the Administration Team are:

**Vat Allocation Officer** who will advise entrants which vat they have been allocated in the show ring, entrants report back to them with the time they floated their travel bags so that the appropriate equalisation time can be calculated. Should a show vat be overstocked they will be responsible to find a satisfactory conclusion in conjunction with the responsible KWO. In case of disputes, this role may involve liaison with other people i.e. Show Chairman.

**Photographer** who will record a photograph of the whole body of the Koi being benched which shows distinguishing markings for identification and judging purposes.

**Information Recorder** who will collate the show entry form with the allocated show vat and will be present at all times during the benching of that vat. The Handler will give the information regarding show size and classification to the Recorder who will repeat the information back to the Handler ensuring that the correct information goes to the person responsible for Data Entry. It is also the duty of the Recorder to make sure that the points system is implemented for the number/size of entries in the vat according to the Show Rules and Guidelines. If the vat is overstocked, the koi cannot be accepted into the show and the Recorder must report this to the Vat Allocation person for a suitable outcome to be found.

**Data Entry Officer** who will administer the data for each Koi entered into the show. This will be done manually in a paper-based system or via computer. The method used will collate the information from the Recorder into a system that will produce the relevant paperwork to control Koi entries and movements and facilitate judging (see Section 7 – Judging Standards)

**Handling Team** who should normally consist of three people (minimum two people), who are trained in the process of BENCHING. This team is directly involved in the well-being of Koi and therefore must have a sound and practical knowledge in the techniques used in

BOWLING, DE-BAGGING from TRAVEL BAGS, HANDLING AND NETTING OF KOI. Koi shows are not the place for the teaching of these skills, and therefore training should be obtained prior to the show.

**The roles of the Handling Team are:-**

**Netter** who will guide the Koi towards the bowl used for benching.

**Bowler** who will get the Koi into the bowl in the prescribed manner.

**Handling Team** who will size, classify and inspect the Koi and pass the relevant information to the Recorder. They will then ask the Recorder to repeat the information back for clarity.

**Debenching Team**

The roles of the Debenching Team are:-

**Debenching Controller** who will ensure that Koi are only debenced by authorised persons at authorised times. During debenching the owner or authorised agent can be accepted as Handler or Bagger.

**Handler** who will gather the Koi in bowl or net as appropriate ready for bagging.

**Bagger** who will place the Koi into the bag or suitable travel container.

**Equipment**

The following equipment should be made available for the Handling Team and it is the responsibility of the Handling Team to ensure that equipment is fit for the purpose intended. It is the Show Chairman's responsibility to ensure that adequate equipment has been made available to the Handling Team as follows:

Suitable vat(s) for disinfecting benching equipment.

Suitable vat(s) for rinsing disinfected equipment.

Contingency vat(s) which is/are suitable for the temporary accommodation of Koi which, for whatever reason, are not able to be entered directly into the show. Contingency vat(s) should be available, at all times, within reasonable distance of the show ring when Koi are on site.

Sufficient pan nets of different sizes for example:

Small pan nets approx 50-60cm (20-24") diameter for use with Koi size 3 and under.

Large pan nets approx 70cm (28") diameter for use with Koi size 4 and above.

Benching bowls; all measuring equipment used must be checked to ensure reasonable accuracy and constancy of sizing.

Suitable disinfectant.

Disposable paper towelling.

Suitable hand disinfecting products.

Any additional hygiene or bio-security equipment agreed by the show committee in accordance with these Show Rules and Guidelines.

## Administration

Prior to the start of benching, the Show Chairman must inform the Head Bencher and/or the full Benching Team of the system in place for booking vats in advance and the system in place for managing overstocking of show vats. The systems should be in accordance with guidance these Show Rules and Guidelines.

On arrival at the showground the owner of the Koi (or their agent) must report to the Vat Allocation official, parking their vehicle in the designated place.

The owner should float his travel bags in the show vat allocated and report the time the floating process began to the Vat Allocation Official so that the correct benching process can begin.

When the appropriate time for the temperature equalisation has elapsed, the owner will be instructed that they can open the transit bags or the owner can delegate the task to the Handling Team. This period will be approximately 20 minutes, however, this will vary with the temperature and conditions under which the Koi have travelled and may be reduced if the temperature of the "home" pond, transit bag and the show vat are similar. The Handling Team or owner can then remove the Koi from their transit bags. No water from the transit bag should enter the show vat. Waste water must be disposed of as instructed by the Administration Team as agreed with the site groundsman.

Once the Koi are swimming freely in the Show Vat they will be ready to be benched into the show.

## Judging Documentation

Documentation must be provided for judges to indicate which Koi in which vat is benched in each class. The judging documentation must allow judges to identify each Koi and must allow recording of the results, judging documentation must not identify the owner of the Koi.

There is no recommended specific format for judging documentation, however, a suitable documentation system would comprise:

Separate page(s) showing the Koi entries for each Class of size and variety

For best in size, a summary document showing 1st and 2nd prize winners in each variety in that size.

For special prizes, a list of Koi or vats that are eligible.

A result sheet for Major prizes - Best Baby, Best Young, Best Adult, Best Mature and Grand Champion.

## The Start of Benching

The aim of the Benching Team is to quickly and correctly identify the show classification, size classification and the eligibility on health grounds of the Koi for entry into the show. With this method, ineligible Koi and Koi with any indication of a possible health problem, (as described in Section 9.2), will be detected before entry into the show. The owner (or their agent) must be present during the whole of the benching process and until all the Koi are accepted into the show. The advice on selecting Koi and their preparation for travel should ensure that fish arrive at the show ground in peak condition. However, in the unlikely event that a Koi cannot be benched for any reason, the fish can be housed in a contingency vat until the end of the

## Show Rules and Guidelines for One and Two Day Koi Shows

Koi Show subject to facilities being available. If the proximity of the Exhibitor's home to the showground allows, it may be preferable for the fish to be returned to the home pond

An appropriate official must be in attendance to monitor compliance with requirements of the Animal Welfare Act as set out in these Show Rules and Guidelines. Attendance of a member of the Koi Welfare Team fulfils this requirement.

Members of the Administration and Handling Teams should not bench their own Koi. If an alternative team member is not available, then a suitable independent person should act as a witness that the benching was performed and recorded correctly.

All nets and bowls and other equipment should be inspected, made safe and disinfected prior to Benching. Nets, bowls and the hands of the benchers must be disinfected and rinsed between vats containing Koi from different owners or different ponds.

### **The Benching Process**

#### **Inspecting, Measuring and Classification for Show Entry**

The Netter guides the Koi towards the bowl. The Bowler gets the Koi into the bowl as described below. Handling of large Koi (size 5 and above) should be minimised.

The Bowler should hold a disinfected bowl vertically in the water, with an imaginary line between the top and the bottom edges of the bowl being at 90 degrees to the water surface. The Netter then places the net under the body of the chosen Koi, without actually touching the Koi and guides it towards the vertical bowl. As the Koi swims into the bowl, the bottom of the net should all but touch the bottom outside lip of the bowl. The bowl is then gently raised from the vertical into the horizontal position. The net should remain in position for as long as necessary to ensure that the Koi remains in the bowl. In this way the Koi is bowled with little or no contact with either bowl or net. The Handler now moves into position and tips water from the bowl until a comfortable working depth is achieved. The minimum water depth in the bowl during benching is that sufficient to cover the fish's gills.

The Handler, working with both hands in the water will gently hold the Koi at the side of measuring bowl and carefully raise the tail so that ventral region may be observed. The tail is then lowered and the front of the fish raised to expose the face jaw and mouth to the Welfare Official. The Handler then gently ensures that the abdomen of the Koi is normal. Any abnormality should be reported to the KWO. This observation should take a matter of seconds and cause no distress to the Koi but ensures that all Koi are in good condition for entering the show. If necessary Koi can be placed in a clear plastic bag with sufficient water to cover the body and the bag lifted to allow inspection of the underside of the body.

After inspection, Koi are measured and classified. Whilst measuring the Koi must be in the normal swimming position with the nose just touching the measuring bowl. All Koi are to be given a measurement, which may be rounded down to the nearest 1 cm if the measurement is solely for calculating stocking rates. It is good practice to record the sizes rounded down to the nearest 0.5 cm for the largest size Koi and those close to the upper and lower class size limits for judging purposes.

Once the handler has agreed the size and classification, it can be relayed to the Information Recorder who should repeat the information back to the Handler for confirmation. In this way, errors can be detected and minimised before the paperwork is further processed.

Note: The entire Benching team should listen to the information to double check that the Handler is correct and the Recorder has repeated the correct information back to the Handler.



### **Photographing Koi:**

The whole body and any distinguishing features should be clearly visible in all photographs. A suitable system for linking each photograph with the individual Koi benching administration record should be in place. If the owner brings his or her own photograph, these may be used at the discretion of the benching team.

Once this benching process is completed, the Koi should be released back into the vat by tilting the bowl and allowing it to swim free.

The Recorder should follow the protocol for overstocking as advised by the Show Chairman and agreed with the KWO.

If the show vat is overstocked, the Recorder should inform the owner and the details should be given to the Vat Allocation Official so that a satisfactory conclusion can be made in agreement with the KWO present.

When all the Koi in the vat are benched and any potential overstocking is resolved, the show entry form should be signed by the Information Recorder and the owner (or their agent) to signify that benching has been completed.

### **Debenching of Koi from the show**

No Koi are to be debenched until the authority to debench has been given. It will usually be the Show Chairman who will make the decision to commence debenching based on various factors. This should include the safety aspect of vehicular access whilst members of the public are present on the show ground.

Vehicular access to the showground or the show ring area must be authorised and controlled once the permission for debenching is given.

The benching/show entry form must be produced to the Debenching Controller who will authorise and give written permission for the owner or authorised agent to debench their Koi from the show vat. The owner or authorised agent will then be responsible for netting, bowling and bagging their Koi and for asking for assistance from the Debenching Team if needed. If show equipment is used for debenching, it must be correctly disinfected between each use by different owners. The owner or authorised agent must confirm with the Debenching Team that disinfection of any borrowed equipment has been satisfactorily completed.

All transit bags should be inflated with oxygen and the Koi should leave the showground as per the transportation requirements in these Show Rules and Guidelines.

The owner or authorised agent must produce the written permission to debench if this is requested by a show official.

## **Appendix E**

### **Procedures for a one day koi show.**

With the exception of the nighttime procedures covered in 10.1.19 these procedure equally apply to one day show.

## **Appendix F**

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**Show standards are not necessarily detrimental to animal welfare – the case for Koi Carp.**

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