However if the facility has been used for holding fish or standing empty (especially outdoors) for a while prior to being used for spawning, it would be advisable to clean it out sufficiently to ensure no predators such as hydra or insect larvae are present. A clean-out and fresh water would also encourage spawning.

Identifying the sexes. Females are larger and usually plumper than males, a difference which increases with age and size. (In fantails, the plumpness is not always obvious, especially in smaller fish.) Males have longer, straighter pectoral fins which have a longer, thicker, harder first ray. The front edge roughens noticeably when spawning tubercles (small, white, raised, nodule-like growths) develop in advance of the breeding season. Males also develop tubercles on the gill covers, which are visible and also rough to the touch. Females have rounder, softer pectoral fins and no tubercles.

If gender is in doubt, as it occasionally may be, with care a little milt can usually be stripped from males by gently running (wet) fingers down the sides of the body from behind the pectorals towards the vent, squeezing very lightly, twice if necessary. Only a small trace of white viscous milt may appear, but this conclusively indicates a male. (Females will not release eggs unless they are running-ripe, which would only be expected immediately prior to or while they are spawning.)

Selecting breeders for spawning. Breeding on a small scale offers the opportunity for careful selection of broodstock, choosing the very best characteristics for the variety. For example, in black moors this would mean well shaped bodies – deep and short, but also not too squat, with a velvety blackness extending as far into the belly area as possible. The tail should have a deeply split fan with strongly spread and well formed symmetrical lobes of good length. The ventral fin should be double and telescope eyes must be pronounced and well formed.

Spawning readiness is preferably indicated by tubercles on the males, though these may not necessarily always be clearly evident. Females should be plump, although ripeness of the ovaries is also not always clearly evident in female fantails because their bodies are naturally rounder than the straight-tails.

Grouping of males to females. Goldfish can be spawned 1 male to 1 female, but it is more common and preferable to use more males than females, for instance 2 males to 1 female; 3 to 2; 6 to 4 etc.

Feeding during spawning. When batch-spawning goldfish as described here, there should be no feeding.

Introduction time. If introduced too early in the day, males may start chasing immediately and damage females which will be unwilling to spawn so rapidly, without time to acclimatise and settle down. To avoid this, they can be introduced in the mid to late afternoon. Interestingly, even if no spawn occurs the following morning, males do not usually damage females if they are left to spawn the following day. Females can also be added a day earlier, with males introduced late in the afternoon on the following day.

Spawning activities. Spawning frequently occurs on the first morning after introduction, but may only occur on the second or even third day. Thereafter chances of a spawn become increasingly poor and breeders may need to be removed, rested and conditioned some more. Males start following and then chasing females very early in the morning, jostling for a position alongside them. When ready, the females seek a suitable substrate over which to spawn, preferably near to the surface. They endeavour to move over the top of the medium, splashing and flapping through the water in the process, to the extent that they sometimes become stranded if males drive them sufficiently hard. (In this situation, both sexes, but especially females, are very vulnerable to attack by predators – particularly birds – when spawning outdoors in unprotected facilities.)

Eggs are expelled during a brief but vigorous 'vibratory dash' through the water, which is quite easily recognizable. This is repeated until females have emptied their ovaries. During spawning, females may receive quite severe abrasions on their flanks from repeated rubbing by the males. These almost invariably heal without attention, but a salt bath at 4 to 5 ppth for several days, or even antibiotics, may be needed in bad cases.

Spawn robbing. Breeders will attempt to eat some eggs, but because (if possible) they are deposited in shallow water near the surface, spawn robbing from the spawning medium is usually fairly limited and inconsequential. Nevertheless, if spawning activity has died down, it is best to remove the breeders as they will have access to