Method For Maximal Embryo Production

(Source: E. Sullivan from Zebrafish Book 5th Edition)

This method requires more work, but is especially well-suited for production of large numbers of embryos (upwards of 1000 embryos per tank) once or twice a week. A continuous supply of embryos can be obtained with this method by adding more tanks of fish and rotating the schedule among the tanks. Although zebrafish reach sexual maturity at 10-12 weeks, the breeding fish should be between 7 and 18 months of age. Keep males and females in separate tanks with up to 8 females or 16 males per 10 gallon tank. The tanks should be cleaned at least once per day by siphoning, replacing about 1/3 of the water. Feed the fish 2-3 times per day. On the day before you want embryos, 1-2 hours before the end of the light period, feed the fish and clean the tanks. Then transfer the males into the tank with the females at a ratio of 1 male to 2 females (excellent results come from 4 males and 8 females). Add marbles to cover the bottom of the tank a single layer deep. After the beginning of the next light cycle, collect the embryos by siphoning the bottom of the tank (see Embryo Collection).

After collecting the embryos, transfer the males back into their tank, scoop out the marbles with a net and clean them thoroughly by autoclaving or by soaking them for 4 hours in a 10% solution of bleach followed by a 4 hours rinse in running water. Do not collect embryos more than two days in a row from the same fish and remove the marbles for at least a week between embryo collections. Transfer all fish to new aquaria every 10 days and scrub and bleach the old tanks.