
**Report on Daily DOH observation of Guppy breed at
Ingiriya and cultured in intensive system at Horana Farm**

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Contents

1. Introduction.....	2
2. Methodology	2
3. Observation	2
4. Discussion	6
5. Conclusion	6
6. Suggestion	6

List of Tables

Table 1: DOHs of tanks, which were exposed to the intensive system at the first day after stocking...	3
Table 2: DOH of tanks; allowed to expose to the intensive system from sixth day after stocking	4
Table 3: Summary of the DOHs in observed tanks	5

List of Figures

Figure 1: Daily DOH in different tank.....	5
Figure 2: Summary of the total DOHs in observed tanks.....	6

1. Introduction

After stocking fish in a tank, the main target is to minimize DOHs and get better harvest at the end of the decided time period.

Normally, Guppy fish in growing stage are receiving into the Horana farm from the Ingiriya farm.

After receiving them, the fish are stocked in cement tanks and allow them to grow in an intensive system.

Within the intensive system, it can be spread diseases easily and DOHs can be found normally.

But, those things should be minimized by following best practices.

2. Methodology

- 1) Three tanks (5*10) were selected for daily observations. (Tank no. 33, 34, 35)
- 2) Prior to stock guppy in those tanks, tanks were washed well with Potassium permanganate and filled with water to conditioning.
- 3) After stock fish, it was allowed to stay fish for six days without expose to the intensive system.
- 4) Daily DOHs were observed.
- 5) Again, another two tanks (Tank no. 26, 48) were selected for DOH observation.
- 6) Same as earlier, prior to stock guppy in those tanks, tanks were washed well with Potassium permanganate and filled with water to conditioning.
- 7) But, from first day after stocking, allowed to fish to expose to the intensive system.
- 8) Daily DOHs were observed.

3. Observation

Daily DOH observation of tanks which were allowed to expose to the intensive system from first day after stocking.

Table 1: DOHs of tanks, which were exposed to the intensive system at the first day after stocking

Date	Observed Tanks	
	Tank 26	Tank 48
25/11/2016	3	9
26/11/2016	28	23
27/11/2016	50	30
28/11/2016	80	83
29/11/2016	88	158
30/11/2016	62	78
Total	311	381

Daily DOH observation of tanks which were allowed to expose to the intensive system from sixth day after stocking.

Table 2: DOH observation of tanks which were allowed to expose to the intensive system from sixth day after stocking

Date	Observed Tanks		
	Tank 33	Tank 34	Tank 35
7/11/2016			
8/11/2016	4	7	
9/11/2016	5	0	6
10/11/2016	4	1	0
11/11/2016	0	0	0
12/11/2016	6	2	11
13/11/2016	0	5	95
14/11/2016	0	10	144
15/11/2016	10	25	41
16/11/2016	4	3	36
17/11/2016	0	4	14
18/11/2016	11	3	9
19/11/2016	22	4	2
20/11/2016	27	0	4
21/11/2016	7	0	0
22/11/2016	2	2	0
23/11/2016	4	0	2
24/11/2016	0	0	0
25/11/2016	3	0	2
26/11/2016	2	0	0
27/11/2016	0	0	0
28/11/2016	0	0	0
29/11/2016	0	1	0
30/11/2016	0	0	0
Total	111	67	366

According to the results, DOHs were higher in tanks, which were exposed to the intensive system at the first day after stocking than the tanks, which were not allowed to expose to the system until 6 days after stocking.

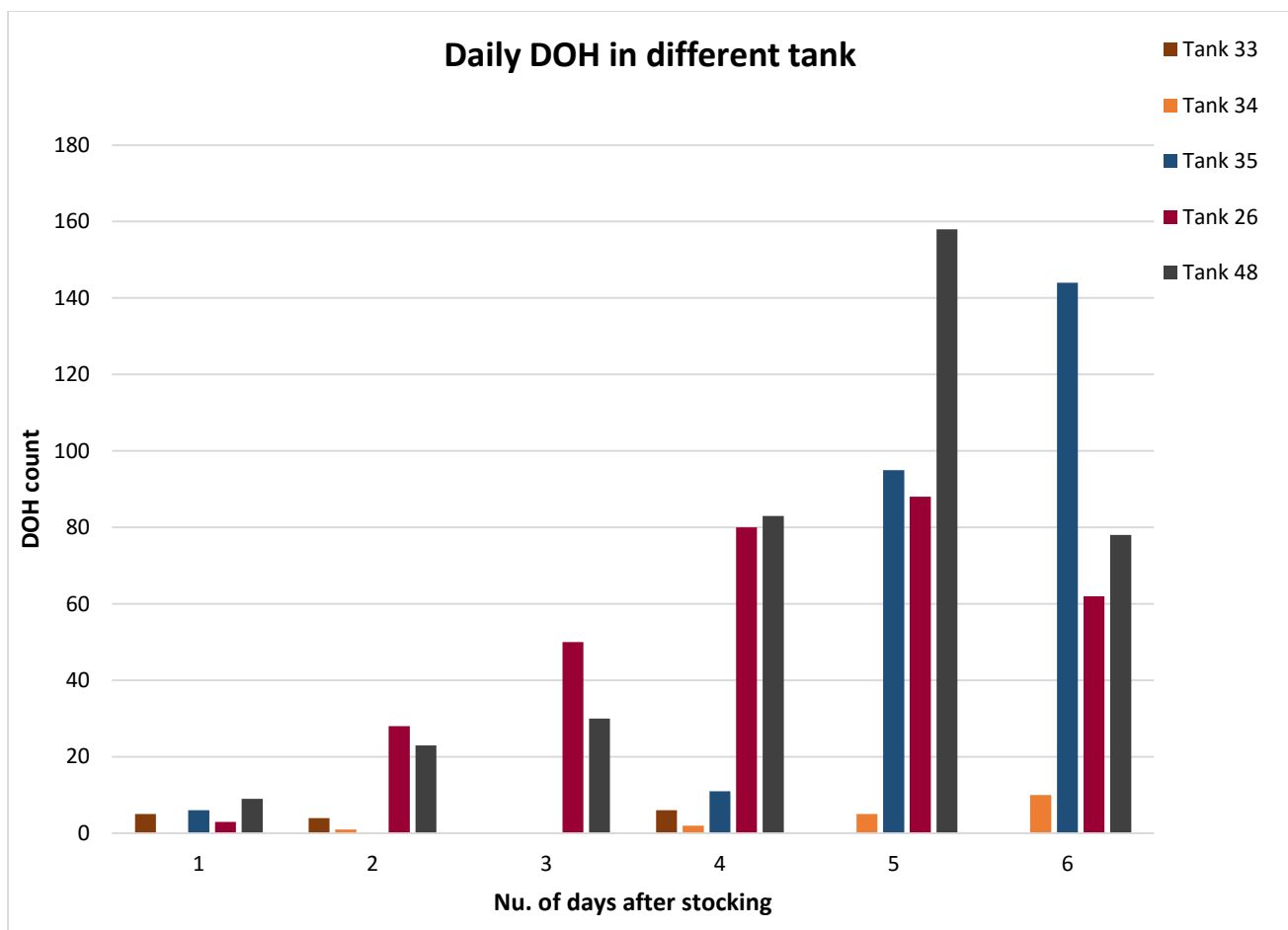


Figure 1: Daily DOH in different tank

Considering first 6 days after stocking, can be summarized as mentioned below.

Table 3: Summary of the DOHs in observed tanks

	Daily DOH				
Nu. of Days after stocking	Tank 33	Tank 34	Tank 35	Tank 26	Tank 48
1	5	0	6	3	9
2	4	1	0	28	23
3	0	0	0	50	30
4	6	2	11	80	83
5	0	5	95	88	158
6	0	10	144	62	78
Total DOH during first 6 days	15	18	256	311	381

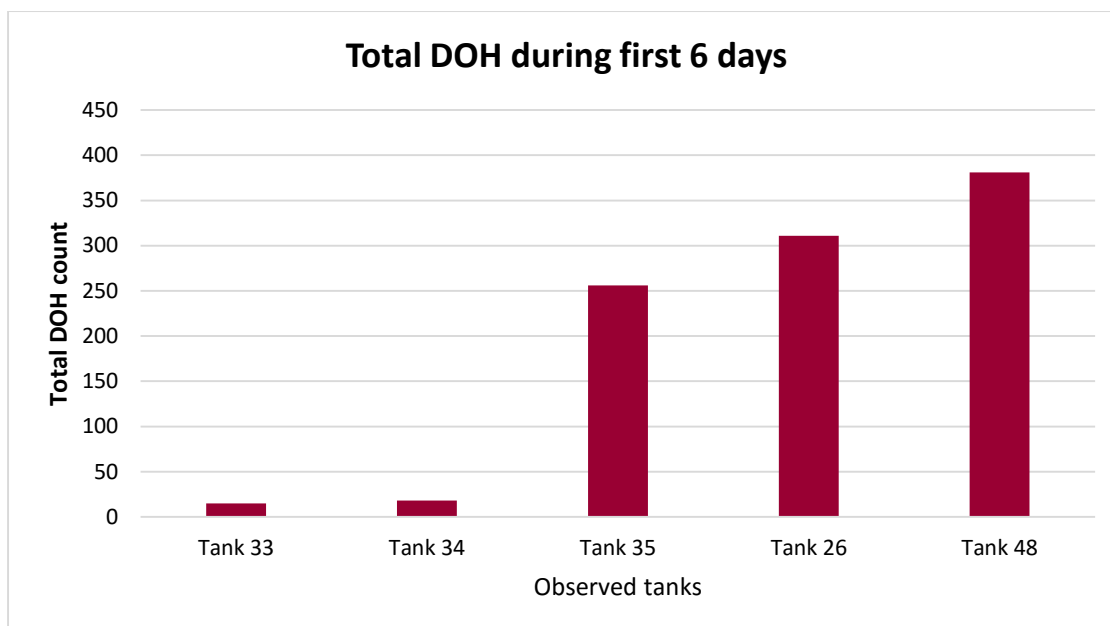


Figure 2: Summary of the total DOHs in observed tanks

4. Discussion

Before stock fish in a tank, cleanliness of the stocking tank is very important. Filled water should be conditioned. If not, fish will sick easily due to extra stress.

Naturally, fish diseases can be occurred due to environment or nutritional factors. Immediate treatments are very important to decrease the DOHs. Delayed treatments cause to increase both number of DOHs and number of diseased fish.

5. Conclusion

Lower DOHs can be observed in tanks which are cleaned using Potassium permanganate (KMnO_4) prior to stock fish and not allowed to expose to the intensive system at least 6 days after stocking.

6. Suggestion

Prior to the stock fish at Horana farm which were received from Ingiriya, better to clean tanks in intensive system using Potassium permanganate (KMnO_4).

It is better to expose fish into the intensive system at least after 6 days from the stocking and at the initial level of the disease condition, immediate treatments should be done to reduce the number of DOHs and diseased fish counts.