



## **LAMPIRAN-LAMPIRAN**

Lampiran 1. Hasil Uji Statistika Pertumbuhan Bobot Mutlak *Clownfish***Tests of Normality**

|              | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|--------------|-----------|---------------------------------|----|------|--------------|----|------|
|              |           | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| BOBOT MUTLAK | P0        | ,232                            | 3  | .    | ,980         | 3  | ,728 |
|              | P1        | ,227                            | 3  | .    | ,982         | 3  | ,747 |
|              | P2        | ,236                            | 3  | .    | ,977         | 3  | ,710 |
|              | P3        | ,310                            | 3  | .    | ,899         | 3  | ,381 |

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

|              |                                      | Levene Statistic | df1 | df2   | Sig. |
|--------------|--------------------------------------|------------------|-----|-------|------|
| BOBOT MUTLAK | Based on Mean                        | 1,533            | 3   | 8     | ,279 |
|              | Based on Median                      | ,833             | 3   | 8     | ,512 |
|              | Based on Median and with adjusted df | ,833             | 3   | 5,134 | ,529 |
|              | Based on trimmed mean                | 1,483            | 3   | 8     | ,291 |

**ANOVA**

BOBOT MUTLAK

|                | Sum of Squares | df | Mean Square | F    | Sig. |
|----------------|----------------|----|-------------|------|------|
| Between Groups | 5212,917       | 3  | 1737,639    | ,131 | ,939 |
| Within Groups  | 106115,333     | 8  | 13264,417   |      |      |
| Total          | 111328,250     | 11 |             |      |      |

Lampiran 2. Hasil Uji Statistika Pertumbuhan Panjang Mutlak *Clownfish*

| Tests of Normality |           |                                 |    |      |              |    |      |
|--------------------|-----------|---------------------------------|----|------|--------------|----|------|
|                    | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|                    |           | Statistic                       | df | Sig. | Statistic    | df | Sig. |
|                    | n         | c                               |    |      | c            |    |      |
| PANJANG<br>MUTLAK  | P0        | ,241                            | 3  | .    | ,974         | 3  | ,688 |
|                    | P1        | ,317                            | 3  | .    | ,888         | 3  | ,348 |
|                    | P2        | ,314                            | 3  | .    | ,893         | 3  | ,363 |
|                    | P3        | ,350                            | 3  | .    | ,829         | 3  | ,187 |

a. Lilliefors Significance Correction

| Test of Homogeneity of Variances |                                         |           |     |       |      |
|----------------------------------|-----------------------------------------|-----------|-----|-------|------|
|                                  |                                         | Levene    | df1 | df2   | Sig. |
|                                  |                                         | Statistic |     |       |      |
| PANJANG<br>MUTLAK                | Based on Mean                           | ,073      | 3   | 8     | ,973 |
|                                  | Based on Median                         | ,007      | 3   | 8     | ,999 |
|                                  | Based on Median and<br>with adjusted df | ,007      | 3   | 7,384 | ,999 |
|                                  | Based on trimmed<br>mean                | ,062      | 3   | 8     | ,978 |

## ANOVA

## PANJANG MUTLAK

|                   | Sum of<br>Squares | df | Mean Square | F    | Sig. |
|-------------------|-------------------|----|-------------|------|------|
| Between<br>Groups | 216,000           | 3  | 72,000      | ,082 | ,968 |
| Within Groups     | 7040,000          | 8  | 880,000     |      |      |
| Total             | 7256,000          | 11 |             |      |      |

Lampiran 3. Hasil Uji Statistika *Survival Rate Clownfish*

|                  |           | Tests of Normality              |    |      |              |    |      |
|------------------|-----------|---------------------------------|----|------|--------------|----|------|
|                  |           | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|                  | Perlakuan | Statistic                       | df | Sig. | Statistic    | df | Sig. |
| SURVIVAL<br>RATE | P0        | .                               | 3  | .    | .            | 3  | .    |
|                  | P1        | .                               | 3  | .    | .            | 3  | .    |
|                  | P2        | .                               | 3  | .    | .            | 3  | .    |
|                  | P3        | .                               | 3  | .    | .            | 3  | .    |

a. Lilliefors Significance Correction



Lampiran 4. Data Pertumbuhan Bobot *Clownfish*

| Perlakuan | Ulangan | W0    | Hari-15 | Hari-30 | Hari-45 | Hari-60 |
|-----------|---------|-------|---------|---------|---------|---------|
| P0        | 1       | 0.364 | 0.494   | 0.574   | 0.618   | 0.676   |
|           | 2       | 0.306 | 0.32    | 0.326   | 0.354   | 0.352   |
|           | 3       | 0.352 | 0.494   | 0.484   | 0.564   | 0.564   |
| P1        | 1       | 0.304 | 0.434   | 0.474   | 0.486   | 0.53    |
|           | 2       | 0.378 | 0.588   | 0.6225  | 0.674   | 0.732   |
|           | 3       | 0.26  | 0.336   | 0.384   | 0.438   | 0.47    |
| P2        | 1       | 0.304 | 0.394   | 0.434   | 0.482   | 0.486   |
|           | 2       | 0.314 | 0.41    | 0.472   | 0.516   | 0.546   |
|           | 3       | 0.474 | 0.582   | 0.632   | 0.488   | 0.792   |
| P3        | 1       | 0.324 | 0.446   | 0.502   | 0.528   | 0.53    |
|           | 2       | 0.284 | 0.376   | 0.456   | 0.5     | 0.558   |
|           | 3       | 0.368 | 0.43    | 0.492   | 0.51    | 0.556   |



Lampiran 5. Data Pertumbuhan Bobot Mutlak *Clownfish*

| <b>PERTUMBUHAN BOBOT MUTLAK <i>CLOWNFISH</i> (<i>Amphiprion percula</i>)</b> |                |              |           |                    |
|------------------------------------------------------------------------------|----------------|--------------|-----------|--------------------|
| <b>Perlakuan</b>                                                             | <b>Ulangan</b> | <b>Wt</b>    | <b>W0</b> | <b>Pertumbuhan</b> |
| <b>P0</b>                                                                    | 1              | 0.676        | 0.364     | 0.312              |
|                                                                              | 2              | 0.352        | 0.306     | 0.046              |
|                                                                              | 3              | 0.564        | 0.352     | 0.212              |
| <b>Rata-rata</b>                                                             |                | <b>0.531</b> |           | <b>0.19</b>        |
| <b>P1</b>                                                                    | 1              | 0.53         | 0.304     | 0.226              |
|                                                                              | 2              | 0.732        | 0.378     | 0.354              |
|                                                                              | 3              | 0.47         | 0.26      | 0.21               |
| <b>Rata-rata</b>                                                             |                | <b>0.577</b> |           | <b>0.263</b>       |
| <b>P2</b>                                                                    | 1              | 0.486        | 0.304     | 0.182              |
|                                                                              | 2              | 0.546        | 0.314     | 0.232              |
|                                                                              | 3              | 0.792        | 0.474     | 0.318              |
| <b>Rata-rata</b>                                                             |                | <b>0.608</b> |           | <b>0.244</b>       |
| <b>P3</b>                                                                    | 1              | 0.53         | 0.324     | 0.206              |
|                                                                              | 2              | 0.558        | 0.284     | 0.274              |
|                                                                              | 3              | 0.556        | 0.368     | 0.188              |
| <b>Rata-rata</b>                                                             |                | <b>0.548</b> |           | <b>0.223</b>       |

Lampiran 6. Data Pertumbuhan Panjang *Clownfish*

| Perlakuan | Ulangan  | W0   | Hari-15 | Hari-30 | Hari-45 | Hari-60 |
|-----------|----------|------|---------|---------|---------|---------|
| <b>P0</b> | <b>1</b> | 2.58 | 2.86    | 2.96    | 2.9     | 3.18    |
|           | <b>2</b> | 2.34 | 2.44    | 2.5     | 2.52    | 2.6     |
|           | <b>3</b> | 2.46 | 2.76    | 2.82    | 3.08    | 3.08    |
| <b>P1</b> | <b>1</b> | 2.42 | 2.64    | 2.78    | 2.9     | 3       |
|           | <b>2</b> | 2.7  | 3.02    | 3.2     | 3.04    | 3.3     |
|           | <b>3</b> | 2.36 | 2.52    | 2.6     | 2.7     | 2.84    |
| <b>P2</b> | <b>1</b> | 2.42 | 2.68    | 2.78    | 2.86    | 2.96    |
|           | <b>2</b> | 2.34 | 3.02    | 2.84    | 2.86    | 2.94    |
|           | <b>3</b> | 2.62 | 2.92    | 3.06    | 3.22    | 3.28    |
| <b>P3</b> | <b>1</b> | 2.44 | 2.9     | 2.84    | 2.98    | 3.06    |
|           | <b>2</b> | 2.42 | 2.6     | 2.74    | 2.88    | 2.98    |
|           | <b>3</b> | 2.52 | 2.72    | 2.88    | 3.06    | 3.12    |



Lampiran 7. Data Pertumbuhan Panjang Mutlak *Clownfish*

| <b>PERTUMBUHAN PANJANG MUTLAK <i>CLOWNFISH</i> (<i>Amphiprion percula</i>)</b> |                |              |           |                    |
|--------------------------------------------------------------------------------|----------------|--------------|-----------|--------------------|
| <b>Perlakuan</b>                                                               | <b>Ulangan</b> | <b>Lt</b>    | <b>L0</b> | <b>Pertumbuhan</b> |
| <b>P0</b>                                                                      | 1              | 3.18         | 2.58      | 0.6                |
|                                                                                | 2              | 2.6          | 2.34      | 0.26               |
|                                                                                | 3              | 3.08         | 2.46      | 0.62               |
| <b>Rata-rata</b>                                                               |                | <b>2.953</b> |           | <b>0.493</b>       |
| <b>P1</b>                                                                      | 1              | 3            | 2.42      | 0.58               |
|                                                                                | 2              | 3.3          | 2.7       | 0.6                |
|                                                                                | 3              | 2.84         | 2.36      | 0.62               |
| <b>Rata-rata</b>                                                               |                | <b>3.047</b> |           | <b>0.553</b>       |
| <b>P2</b>                                                                      | 1              | 2.96         | 2.42      | 0.54               |
|                                                                                | 2              | 2.94         | 2.34      | 0.6                |
|                                                                                | 3              | 2.28         | 2.62      | 0.66               |
| <b>Rata-rata</b>                                                               |                | <b>3.06</b>  |           | <b>0.6</b>         |
| <b>P3</b>                                                                      | 1              | 3.06         | 2.44      | 0.62               |
|                                                                                | 2              | 2.98         | 2.42      | 0.56               |
|                                                                                | 3              | 3.12         | 2.52      | 0.6                |
| <b>Rata-rata</b>                                                               |                | <b>3.053</b> |           | <b>0.593</b>       |



Lampiran 8. Data *Survival Rate Clownfish*

| SURVIVAL RATE <i>CLOWNFISH</i> ( <i>Amphiprion percula</i> ) |    |   |   |    |   |   |    |   |   |    |   |   |     |
|--------------------------------------------------------------|----|---|---|----|---|---|----|---|---|----|---|---|-----|
| Perlakuan                                                    | P0 |   |   | P1 |   |   | P2 |   |   | P3 |   |   | %   |
| Ulangan                                                      | 1  | 2 | 3 | 1  | 2 | 3 | 1  | 2 | 3 | 1  | 2 | 3 |     |
| W0                                                           | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |
| Hari ke- 15                                                  | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |
| Hari ke- 30                                                  | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |
| Hari ke- 45                                                  | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |
| Hari ke- 60                                                  | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |
| <b>Rata-rata</b>                                             | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 5  | 5 | 5 | 100 |



## Lampiran 9. Kualitas Air Suhu Penelitian

| Data Observasi Suhu Air Penelitian |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hari<br>ke-                        | P0   |      |      | P1   |      |      | P2   |      |      | P3   |      |      |
|                                    | 1    | 2    | 3    | 1    | 2    | 3    | 1    | 2    | 3    | 1    | 2    | 3    |
| 1                                  | 27.9 | 27.8 | 28   | 27.9 | 27.8 | 27.8 | 27.8 | 28   | 27.8 | 27.9 | 28   | 27.9 |
| 2                                  | 26.9 | 27   | 27   | 26.9 | 26.9 | 27   | 27.1 | 27.1 | 27   | 27   | 26.9 | 26.9 |
| 3                                  | 26.6 | 26.7 | 26.8 | 26.6 | 26.6 | 26.6 | 26.6 | 26.7 | 26.7 | 26.6 | 26.6 | 26.6 |
| 4                                  | 26.4 | 26.4 | 26.4 | 26.3 | 26.4 | 26.4 | 26.3 | 26.5 | 26.4 | 26.3 | 26.4 | 26.5 |
| 5                                  | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.4 | 26.3 | 26.3 | 26.3 |
| 6                                  | 26.6 | 26.6 | 26.6 | 26.5 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.5 | 26.5 |
| 7                                  | 26.6 | 26.6 | 26.4 | 26.5 | 26.6 | 26.6 | 26.6 | 26.6 | 25.8 | 26.6 | 26.5 | 26.5 |
| 8                                  | 25.6 | 25.6 | 25.9 | 25.6 | 25.5 | 25.5 | 25.3 | 25.2 | 25.7 | 25.2 | 25.3 | 25.5 |
| 9                                  | 26.6 | 26.6 | 26.7 | 26.6 | 26.6 | 26.6 | 26.7 | 26.7 | 26.6 | 26.6 | 26.6 | 26.6 |
| 10                                 | 26.4 | 26.4 | 26.6 | 26.4 | 26.5 | 26.4 | 26.4 | 26.5 | 26.6 | 26.4 | 26.5 | 26.4 |
| 11                                 | 25.9 | 26   | 25.9 | 25.8 | 25.9 | 25.9 | 25.8 | 26.2 | 25.9 | 25.9 | 25.9 | 25.9 |
| 12                                 | 26.6 | 26.6 | 26.8 | 26.6 | 26.6 | 26.6 | 26.6 | 26.7 | 26.6 | 26.6 | 26.6 | 26.6 |
| 13                                 | 27.2 | 27.1 | 27.2 | 27.1 | 27.2 | 27.2 | 27.2 | 27.2 | 27.1 | 27.2 | 27.1 | 27.1 |
| 14                                 | 27.2 | 27.2 | 27.2 | 27.1 | 27.2 | 27.2 | 27.2 | 27.2 | 27.1 | 27.1 | 27.1 | 27.2 |
| 15                                 | 27   | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 | 27   | 26.9 | 26.9 | 26.9 |
| 16                                 | 26.8 | 26.7 | 26.8 | 26.6 | 26.7 | 26.6 | 26.7 | 26.6 | 26.8 | 26.7 | 26.7 | 26.7 |
| 17                                 | 26.2 | 26.1 | 26.1 | 26.1 | 26.2 | 26.1 | 26.1 | 26.2 | 26.2 | 26.1 | 26.3 | 26.1 |
| 18                                 | 26.2 | 26.2 | 26.2 | 26.2 | 26.2 | 26.3 | 26.3 | 26.2 | 26.2 | 26.3 | 26.2 | 26.3 |
| 19                                 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| 20                                 | 26.5 | 26.4 | 26.5 | 26.4 | 26.5 | 26.5 | 26.5 | 26.4 | 26.5 | 26.5 | 26.4 | 26.4 |
| 21                                 | 26.6 | 26.6 | 26.5 | 26.5 | 26.6 | 26.6 | 26.5 | 26.5 | 26.5 | 26.6 | 26.5 | 26.6 |
| 22                                 | 26.5 | 26.5 | 26.6 | 26.4 | 26.4 | 26.5 | 26.5 | 26.6 | 26.5 | 26.5 | 26.4 | 26.4 |
| 23                                 | 26.3 | 26.3 | 26.4 | 26.3 | 26.3 | 26.3 | 26.3 | 26.4 | 26.3 | 26.3 | 26.3 | 26.3 |
| 24                                 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.6 | 26.3 | 26.3 | 26.3 | 26.3 |
| 25                                 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.5 | 26.6 | 26.6 | 26.6 | 26.6 |
| 26                                 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| 27                                 | 26.8 | 26.8 | 26.8 | 26.8 | 26.8 | 26.8 | 26.8 | 26.9 | 26.9 | 26.8 | 26.8 | 26.8 |
| 28                                 | 26.7 | 26.6 | 26.7 | 26.7 | 26.7 | 26.8 | 26.6 | 26.7 | 26.7 | 26.7 | 26.7 | 26.7 |
| 29                                 | 26.1 | 26.1 | 26.1 | 26   | 26.1 | 26.1 | 26.1 | 26.1 | 26.1 | 26.2 | 26   | 26.1 |
| 30                                 | 26.3 | 26.2 | 26.3 | 26.2 | 26.2 | 26.2 | 26.2 | 26.3 | 26.3 | 26.2 | 26.2 | 26.2 |
| 31                                 | 25.1 | 25   | 25.3 | 25.1 | 25   | 25.3 | 25   | 26.2 | 25.5 | 25   | 25   | 25.1 |
| 32                                 | 26.9 | 26.9 | 27   | 26.9 | 26.9 | 26.9 | 26.9 | 27   | 26.9 | 26.9 | 26.9 | 26.9 |
| 33                                 | 27   | 27.1 | 27   | 27   | 27.1 | 27   | 27.2 | 27.1 | 27   | 27   | 27   | 27.1 |
| 34                                 | 25.7 | 25.2 | 25.9 | 25.3 | 25.2 | 25.5 | 25.2 | 26   | 25.7 | 25.2 | 25.3 | 25.2 |
| 35                                 | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 | 27.1 | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 |
| 36                                 | 25.3 | 25.1 | 25.7 | 25.1 | 25.1 | 25.1 | 25.1 | 26   | 25.7 | 25.2 | 25.2 | 25.1 |
| 37                                 | 25.3 | 25   | 26.3 | 25   | 25   | 25.2 | 25   | 26.3 | 25.3 | 25.1 | 25   | 25   |
| 38                                 | 24.6 | 24.5 | 25.1 | 24.5 | 24.4 | 24.5 | 24.4 | 25   | 24.6 | 24.4 | 24.4 | 24.5 |
| 39                                 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.8 |
| 40                                 | 25   | 25   | 25.1 | 25   | 25   | 25   | 25   | 25.1 | 25   | 25   | 25   | 25   |
| 41                                 | 25.9 | 25.9 | 25.9 | 25.8 | 25.9 | 25.9 | 25.9 | 26   | 25.9 | 25.9 | 25.8 | 25.9 |
| 42                                 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.8 | 25.9 | 25.8 | 25.9 |

|           |             |      |      |             |      |      |             |      |      |             |      |      |
|-----------|-------------|------|------|-------------|------|------|-------------|------|------|-------------|------|------|
| 43        | 26.2        | 26.2 | 26.2 | 26.2        | 26.2 | 26.2 | 26.2        | 26.2 | 26.2 | 26.2        | 26.1 | 26.2 |
| 44        | 25.9        | 25.9 | 26   | 25.9        | 25.9 | 25.9 | 25.9        | 26   | 25.9 | 25.9        | 25.9 | 25.9 |
| 45        | 26.3        | 26.3 | 26.4 | 26.3        | 26.3 | 26.3 | 26.4        | 26.4 | 26.4 | 26.3        | 26.3 | 26.3 |
| 46        | 25.6        | 25.6 | 25.7 | 25.6        | 25.6 | 25.6 | 25.6        | 25.7 | 25.6 | 25.6        | 25.6 | 25.6 |
| 47        | 24.7        | 24.8 | 24.6 | 24.8        | 24.7 | 25.6 | 24.8        | 24.6 | 24.6 | 24.8        | 24.8 | 24.7 |
| 48        | 24.6        | 24.6 | 24.6 | 24.6        | 24.6 | 24.6 | 24.6        | 24.6 | 24.6 | 24.6        | 24.6 | 24.6 |
| 49        | 24.4        | 24.3 | 24.4 | 24.2        | 24.3 | 24.3 | 24.3        | 24.4 | 24.4 | 24.3        | 24.2 | 24.2 |
| 50        | 24.5        | 24.3 | 24.4 | 24.3        | 24.4 | 24.4 | 24.2        | 24.3 | 24.3 | 24.4        | 24.1 | 24.2 |
| 51        | 25          | 25.2 | 25.1 | 24.9        | 25   | 25   | 25.2        | 25.2 | 25   | 24.9        | 24.9 | 24.9 |
| 52        | 25.2        | 25.1 | 25.1 | 25.2        | 25   | 25   | 25.3        | 25.1 | 25   | 25.1        | 25.2 | 25.1 |
| 53        | 25.4        | 25.4 | 25.6 | 25.3        | 25.5 | 25.4 | 25.5        | 25.6 | 25.5 | 25.4        | 25.4 | 25.5 |
| 54        | 26.2        | 26.3 | 26.3 | 26.2        | 26.3 | 26.2 | 26.2        | 26.3 | 26.3 | 26.2        | 26.2 | 26.2 |
| 55        | 26.5        | 26.5 | 26.5 | 26.4        | 26.5 | 26.4 | 26.5        | 26.5 | 26.5 | 26.4        | 26.4 | 26.5 |
| 56        | 26.3        | 26.3 | 26.2 | 26.2        | 26.3 | 26.3 | 26.3        | 26.3 | 26.3 | 26.3        | 26.2 | 26.3 |
| 57        | 26.3        | 26.4 | 26.6 | 26.3        | 26.4 | 26.4 | 26.6        | 26.4 | 26.4 | 26.4        | 26.3 | 26.3 |
| 58        | 26          | 26   | 26.1 | 25.9        | 26   | 26   | 26          | 26.1 | 26.1 | 26          | 26   | 26   |
| 59        | 25.5        | 25.4 | 25.4 | 25.6        | 25.4 | 25.4 | 25.4        | 25.5 | 25.3 | 25.5        | 25.5 | 25.5 |
| 60        | 25.9        | 25.9 | 26.1 | 25.9        | 25.9 | 25.9 | 26          | 26.1 | 26.1 | 25.9        | 25.9 | 25.9 |
| Rata-rata | <b>27.4</b> |      |      | <b>26.0</b> |      |      | <b>26.1</b> |      |      | <b>26.0</b> |      |      |



[illegible]

|           |             |    |    |             |    |    |             |    |    |             |    |    |
|-----------|-------------|----|----|-------------|----|----|-------------|----|----|-------------|----|----|
| 43        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 44        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 45        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 46        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 47        | 33          | 33 | 33 | 33          | 33 | 33 | 33          | 33 | 33 | 33          | 33 | 33 |
| 48        | 32          | 32 | 32 | 32          | 32 | 32 | 32          | 32 | 32 | 32          | 32 | 32 |
| 49        | 32          | 32 | 32 | 32          | 32 | 32 | 32          | 32 | 32 | 32          | 32 | 32 |
| 50        | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 |
| 51        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 52        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 53        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 54        | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 |
| 55        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 56        | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 |
| 57        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 58        | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 | 30          | 30 | 30 |
| 59        | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 |
| 60        | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 | 31          | 31 | 31 |
| Rata-rata | <b>30.7</b> |    |    | <b>30.7</b> |    |    | <b>30.7</b> |    |    | <b>30.7</b> |    |    |



Lampiran 11. Kualitas Air pH Penelitian

| Data Observasi pH Air Penelitian |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hari ke-                         | P0   |      |      | P1   |      |      | P2   |      |      | P3   |      |      |
|                                  | 1    | 2    | 3    | 1    | 2    | 3    | 1    | 2    | 3    | 1    | 2    | 3    |
| 1                                | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  | 8.4  |
| 7                                | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 14                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 21                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 28                               | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  | 8.6  |
| 35                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 42                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 49                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 56                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| 60                               | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 | 8.14 |
| Rata-rata                        | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  | 8.2  |



## Lampiran 12. Kualitas Air Amonia Penelitian

| Data Observasi Amonia (Mg/l) Air Penelitian |          |   |   |          |   |   |          |   |   |          |   |   |
|---------------------------------------------|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
| Hari ke-                                    | P0       |   |   | P1       |   |   | P2       |   |   | P3       |   |   |
|                                             | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
| 1                                           | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 7                                           | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 14                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 21                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 28                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 35                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 42                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 49                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 56                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| 60                                          | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 | 0        | 0 | 0 |
| <b>Rata-rata</b>                            | <b>0</b> |   |   | <b>0</b> |   |   | <b>0</b> |   |   | <b>0</b> |   |   |



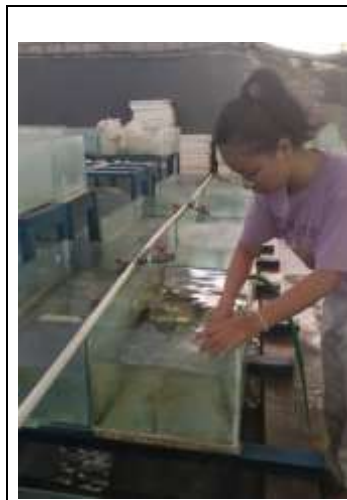


## Lampiran 13. Dokumentasi Alat dan Bahan Penelitian

|                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |    |    |
| Pakan pelet                                                                         | pH Meter                                                                            | Amonia test                                                                           |
|   |   |   |
| Thermometer                                                                         | Temulawak                                                                           | Refraktometer                                                                         |
|  |  |  |
| Timbangan                                                                           | Seser                                                                               | Baskom                                                                                |



## Lampiran 14. Dokumentasi Kegiatan Penelitian

**Penyiponan****Pemberian makan****Pengukuran panjang ikan****Pengukuran bobot ikan****Pembuatan pakan****Respon *Clownfish*****Mengiris Temulawak**

## RIWAYAT HIDUP



Santa Natalia Togatorop lahir di Medan pada tanggal 02 Maret 2003. Penulis dari pasangan suami istri Bapak Anwar Togatorop dan Ibu Agustina Siregar. Penulis berkebangsaan Indonesia dan beragama Katholik. Kini penulis beralamat di Desa Les, Kecamatan Tejakula, Kabupaten Buleleng, Provinsi Bali.

Penulis menyelesaikan pendidikan dasar di SD Methodist Kp.Baru pada tahun 2015. Kemudian penulis melanjutkan di SMP Negeri 1 Pangkatan dan lulus pada tahun 2018. Pada tahun 2021, penulis lulus dari SMA Yp. HKBP Sidorame dan melanjutkan ke program studi Akuakultur di Universitas Pendidikan Ganesha. Pada semester akhir tahun 2025 penulis telah menyelesaikan Tugas Akhir yang berjudul “ Performa Penambahan Serbuk Temulawak Pada Pakan Komersil Terhadap Laju Pertumbuhan Benih *Clownfish* Biak (*Amphiprion percula*)”.

