

BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Dari hasil penelitian selama 56 hari dapat diambil kesimpulan sebagai berikut :

1. Perlakuan pemberian pakan dengan penambahan vitamin C 0,000625 mg/ml (D) memberikan pertumbuhan yang lebih cepat dan lebih baik dibandingkan perlakuan lainnya.
2. Perlakuan dengan penambahan vitamin C 0,000417 mg/ml (C) dan 0,000625 mg/ml (D) menghasilkan derajat kelangsungan hidup sebesar 96,667%, sedangkan perlakuan dengan tambahan vitamin 0,000208 mg/ml (B) sebesar 93,333%, dan tanpa vitamin C sebesar 80%.

B. Saran

1. Perlu adanya penelitian lebih lanjut mengenai penggunaan vitamin C dalam perkembangan selanjutnya dari katak benggala (percil hingga dewasa).
2. Perlu adanya penelitian lanjutan mengenai penggunaan dosis vitamin C hingga 0,000417 mg/ml.

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LAMPIRAN

Lampiran 1. Data pertumbuhan rata - rata berudu katak benggala (*Rana cafesbeiana* Shaw) selama penelitian

| Hari ke- | Ulangan | Berat badan (g) | | | Panjang total (cm) | | | Panjang ekor (cm) | | | | | |
|----------|---------|-----------------|-------|-------|--------------------|-------|-------|-------------------|-------|------|------|------|------|
| | | A | B | C | D | A | B | C | D | A | B | C | D |
| 0 | 1 | 8,21 | 8,30 | 8,18 | 8,40 | 9,30 | 9,31 | 9,27 | 9,33 | 6,55 | 6,50 | 6,50 | 6,39 |
| | 2 | 8,45 | 8,40 | 8,30 | 8,39 | 9,35 | 9,45 | 9,35 | 9,46 | 6,24 | 6,48 | 6,45 | 6,47 |
| | 3 | 8,30 | 8,56 | 8,47 | 8,61 | 9,26 | 9,30 | 9,30 | 9,37 | 6,40 | 6,40 | 6,38 | 6,54 |
| 7 | 1 | 8,57 | 8,67 | 8,58 | 8,97 | 9,45 | 9,57 | 9,55 | 9,93 | 6,57 | 6,67 | 6,82 | 6,90 |
| | 2 | 8,73 | 8,77 | 8,92 | 9,21 | 9,61 | 9,45 | 9,84 | 9,87 | 6,47 | 6,78 | 6,90 | 6,90 |
| | 3 | 8,62 | 8,85 | 8,86 | 9,58 | 9,42 | 9,62 | 9,72 | 9,90 | 6,62 | 6,58 | 6,65 | 6,85 |
| 14 | 1 | 8,92 | 9,23 | 9,37 | 9,95 | 9,64 | 9,85 | 10,08 | 10,37 | 6,82 | 7,23 | 7,42 | 7,56 |
| | 2 | 9,27 | 9,55 | 9,72 | 10,58 | 9,73 | 9,94 | 10,23 | 10,68 | 6,69 | 7,11 | 7,21 | 7,49 |
| | 3 | 9,42 | 9,68 | 10,32 | 10,87 | 9,65 | 10,12 | 10,43 | 10,72 | 7,04 | 6,72 | 7,25 | 7,37 |
| 21 | 1 | 9,38 | 9,98 | 10,33 | 11,11 | 10,22 | 10,49 | 10,63 | 10,88 | 7,22 | 7,48 | 7,54 | 7,76 |
| | 2 | 10,20 | 10,35 | 10,93 | 11,89 | 10,43 | 10,23 | 10,46 | 11,22 | 7,28 | 7,35 | 7,48 | 7,80 |
| | 3 | 9,78 | 10,54 | 10,62 | 11,53 | 10,07 | 10,52 | 10,77 | 11,08 | 7,15 | 7,09 | 7,35 | 7,75 |
| 28 | 1 | 10,23 | 10,88 | 11,06 | 8,70 | 10,62 | 10,72 | 11,01 | 9,67 | 7,36 | 7,67 | 7,82 | 6,39 |
| | 2 | 10,67 | 10,96 | 11,70 | 10,18 | 10,70 | 10,67 | 10,98 | 9,86 | 7,62 | 7,58 | 7,73 | 6,50 |
| | 3 | 10,49 | 11,16 | 11,48 | 10,64 | 10,47 | 10,82 | 11,24 | 9,90 | 7,47 | 7,43 | 7,69 | 6,20 |
| 35 | 1 | 8,44 | 7,85 | 9,37 | 7,20 | 7,26 | 8,47 | 10,17 | 7,54 | 5,76 | 6,28 | 6,52 | 4,17 |
| | 2 | 8,32 | 8,29 | 8,72 | 8,87 | 8,56 | 9,33 | 9,28 | 6,68 | 6,32 | 6,40 | 6,37 | 3,75 |
| | 3 | 7,87 | 8,75 | 8,35 | 9,99 | 7,85 | 8,50 | 9,75 | 7,06 | 6,25 | 5,96 | 6,42 | 3,75 |
| 42 | 1 | 7,51 | 7,56 | 8,35 | 7,28 | 6,42 | 6,83 | 7,49 | 5,25 | 2,83 | 3,45 | 4,17 | 0,77 |
| | 2 | 7,42 | 7,22 | 7,77 | 7,17 | 6,61 | 6,57 | 6,62 | 5,15 | 3,75 | 4,09 | 3,34 | 1,45 |
| | 3 | 6,85 | 7,68 | 7,56 | 7,38 | 6,45 | 6,55 | 7,02 | 4,50 | 3,48 | 3,22 | 3,75 | 1,21 |
| 49 | 1 | 6,73 | 6,69 | 7,58 | 6,43 | 4,23 | 5,11 | 5,22 | 4,19 | 1,30 | 1,37 | 1,54 | 0,00 |
| | 2 | 6,38 | 6,50 | 6,84 | 6,45 | 4,37 | 4,32 | 4,53 | 4,00 | 1,69 | 1,65 | 1,19 | 0,00 |
| | 3 | 6,28 | 6,81 | 6,75 | 6,39 | 4,20 | 4,42 | 5,21 | 3,69 | 1,53 | 1,46 | 1,09 | 0,00 |
| 56 | 1 | 6,22 | 6,10 | 6,67 | | 3,25 | 3,40 | 4,02 | | 0,00 | 0,00 | 0,00 | |
| | 2 | 6,05 | 6,17 | 6,35 | | 3,21 | 3,48 | 3,57 | | 0,00 | 0,00 | 0,00 | |
| | 3 | 5,96 | 6,25 | 6,13 | | 3,31 | 3,35 | 3,45 | | 0,00 | 0,00 | 0,00 | |

Lampiran 2. Data berat badan rata-rata berudu katak benggala

| Pengamatan (r) | Perlakuan (t) | | | | Total |
|---------------------------|--------------------|--------------------|--------------------|--------------------|----------------|
| | A | B | C | D | |
| 1 | 8,320 | 8,370 | 8,340 | 8,467 | |
| 2 | 8,640 | 8,763 | 8,787 | 9,203 | |
| 3 | 9,203 | 9,487 | 9,773 | 10,467 | |
| 4 | 9,787 | 10,290 | 10,627 | 11,543 | |
| 5 | 10,463 | 11,000 | 11,43 | 9,840 | |
| 6 | 8,210 | 8,293 | 8,815 | 8,687 | |
| 7 | 7,260 | 7,487 | 7,893 | 7,163 | |
| 8 | 6,463 | 6,667 | 7,057 | 6,423 | |
| 9 | 6,077 | 6,173 | 6,353 | - | |
| Jumlah (Yi) | $\frac{74,423}{9}$ | $\frac{76,530}{9}$ | $\frac{79,082}{9}$ | $\frac{71,793}{8}$ | 301,282 (Y) |
| Rata-rata (\bar{Y}_i) | 8,269 | 8,500 | 8,787 | 8,974 | |

$$Db \text{ total} = 36 - 1 = 35$$

$$Db \text{ perlakuan} = 4 - 1 = 3$$

$$Db \text{ galat} = 35 - 3 = 32$$

$$\begin{aligned} \text{Faktor koreksi (FK)} &= \frac{Y^2}{rt} = \frac{(\text{total jendral})^2}{\text{total banyaknya pengamatan}} = \frac{(301,282)^2}{(9)(4)} \\ &= 2530,559 \end{aligned}$$

$$\begin{aligned} \text{JK total (JKT)} &= \sum_{ij} Y_{ij}^2 - \text{FK} \\ &= (8,32)^2 + (8,64)^2 + \dots + \dots + (6,423)^2 - \text{FK} \\ &= 2641,070 - 2530,559 = 110,511 \end{aligned}$$

$$\text{JK perlakuan (JKP)} = \sum_r \frac{Y_r^2}{r} - \text{FK}$$

$$\begin{aligned}
 &= \sum \frac{(\text{total perlakuan})^2}{r} - FK \\
 &= \frac{(74,423)^2}{9} + \frac{(76,530)^2}{9} + \frac{(79,082)^2}{9} + \frac{(71,793)^2}{8} - 2530,559 \\
 &= 2572,822 - 2530,559 = 42,263
 \end{aligned}$$

$$\begin{aligned}
 \text{JK galat (JKG)} &= \text{JKT} - \text{JKP} \\
 &= 110,511 - 42,263 = 68,248
 \end{aligned}$$

$$\text{KT perlakuan (JKT)} = \frac{\text{JK Perlakuan}}{t - 1} = \frac{42,263}{3} = 14,088$$

$$\text{KT galat (KTG)} = \frac{\text{JK Galat}}{\text{Db galat}} = \frac{68,248}{32} = 2,133$$

$$\text{F hitung} = \frac{\text{KT Perlakuan}}{\text{KT Galat}} = \frac{14,088}{2,133} = 6,605$$

Lampiran 3. Analisis varian berat badan rata - rata berudu katak benggala

| Sumber keragaman | DB | JK | KT | F hitung | F tabel (0,05) |
|------------------|----|--------|--------|----------|----------------|
| Perlakuan | 3 | 42,263 | 14,088 | 6,605 ** | 2,90 |
| Galat | 32 | 68,248 | 2,133 | | |
| Total | 35 | | | | |

**) Berbeda nyata pada taraf 5%

※ Uji lanjutan DMRT (*Duncan's Multiple Range Test*)

$$\text{Simpangan baku (s)} = (\text{KTG})^{1/2} = (2,133)^{1/2} = 1,460$$

| P | rp (0,05) | s | RP |
|---|-----------|---------|-------|
| 2 | (2,884) | (1,460) | 4,211 |
| 3 | (3,034) | (1,460) | 4,430 |
| 4 | (3,114) | (1,460) | 4,546 |

| Perlakuan | A | B | C | D |
|-------------|-------|-------|-------|-------|
| Rata - rata | 8,269 | 8,500 | 8,787 | 8,974 |
| Ulangan | 9 | 9 | 9 | 8 |

* LSR

* D

$$C = (4,211) (1/2 (1/8 + 1/9))^{1/2} = 1,447$$

$$B = (4,430) (1/2 (1/8 + 1/9))^{1/2} = 1,552$$

$$A = (4,564) (1/2 (1/8 + 1/9))^{1/2} = 1,562$$

* C

$$B = (4,211) (1/2 (1/9 + 1/9))^{1/2} = 1,404$$

$$A = (4,430) (1/2 (1/9 + 1/9))^{1/2} = 1,477$$

* B

$$A = (4,211) (1/2 (1/9 + 1/9))^{1/2} = 1,407$$

Lampiran 4. Uji Duncan berat badan rata - rata berudu katak benggala

| Perlakuan | $X_i - X_j$ | LSR (0,05) |
|-----------|-------------|------------|
| D dan C | 0,187 a | 1,447 |
| D dan B | 0,474 a | 1,552 |
| D dan A | 0,705 a | 1,562 |
| C dan B | 0,287 a | 1,404 |
| C dan A | 0,518 a | 1,477 |
| B dan A | 0,231 a | 1,407 |

Keterangan : Angka dengan huruf yang sama berarti tidak berbeda nyata

Lampiran 5. Data panjang total rata - rata berudu katak benggala

| Pengamatan (r) | Perlakuan (t) | | | | Total |
|---------------------------|--------------------|--------------------|--------------------|--------------------|----------------|
| | A | B | C | D | |
| 1 | 9,303 | 9,353 | 9,307 | 9,387 | |
| 2 | 9,493 | 9,547 | 9,703 | 9,900 | |
| 3 | 9,673 | 9,970 | 10,247 | 10,590 | |
| 4 | 10,673 | 10,413 | 10,620 | 11,060 | |
| 5 | 10,240 | 10,373 | 11,077 | 9,810 | |
| 6 | 7,890 | 8,767 | 9,733 | 7,093 | |
| 7 | 6,493 | 6,650 | 7,043 | 4,967 | |
| 8 | 4,267 | 4,617 | 4,987 | 3,960 | |
| 9 | 3,257 | 3,410 | 3,680 | - | |
| Jumlah (Yi) | $\frac{71,213}{9}$ | $\frac{73,464}{9}$ | $\frac{76,397}{9}$ | $\frac{66,767}{8}$ | 287,841 (Y) |
| Rata-rata (\bar{Y}_i) | 7,912 | 8,163 | 8,488 | 8,346 | |

$$Db \text{ total} = 36 - 1 = 35$$

$$Db \text{ perlakuan} = 4 - 1 = 3$$

$$Db \text{ galat} = 35 - 3 = 32$$

$$\begin{aligned} \text{Faktor koreksi (FK)} &= \frac{Y^2}{rt} = \frac{(\text{total jendral})^2}{\text{total banyaknya pengamatan}} = \frac{(287,841)^2}{(9)(4)} \\ &= 2301,457 \end{aligned}$$

$$\begin{aligned} \text{JK total (JKT)} &= \sum_{ij} Y_{ij}^2 - \text{FK} \\ &= (9,303)^2 + (9,493)^2 + \dots + \dots + (3,960)^2 - \text{FK} \\ &= 2587,875 - 2301,457 = 286,418 \end{aligned}$$

$$\text{JK perlakuan (JKP)} = \sum_r \frac{Y_1^2 + \dots + Y_t^2}{r} - \text{FK}$$

$$\begin{aligned}
 &= \sum \frac{(\text{total perlakuan})^2}{r} - FK \\
 &= \frac{(71,213)^2}{9} + \frac{(73,464)^2}{9} + \frac{(76,397)^2}{9} + \frac{(66,767)^2}{8} - 2301,457 \\
 &= 2368,868 - 2301,457 \\
 &= 85,411
 \end{aligned}$$

$$\begin{aligned}
 \text{JK galat (JKG)} &= \text{JKT} - \text{JKP} \\
 &= 286,418 - 85,411 \\
 &= 201,007
 \end{aligned}$$

$$\text{KT perlakuan (KTP)} = \frac{\text{JK Perlakuan}}{t - 1} = \frac{85,411}{3} = 28,470$$

$$\text{KT galat (KTG)} = \frac{\text{JK Galat}}{\text{Db galat}} = \frac{201,007}{32} = 6,281$$

$$\text{F hitung} = \frac{\text{KT Perlakuan}}{\text{KT Galat}} = \frac{28,470}{6,281} = 4,533$$

Lampiran 6. Analisis varian panjang total rata - rata berudu katak benggala

| Sumber keragaman | DB | JK | KT | F hitung | F tabel (0,05) |
|------------------|----|---------|--------|----------|----------------|
| Perlakuan | 3 | 85,411 | 28,470 | 4,533 ** | 2,90 |
| Galat | 32 | 201,007 | 6,281 | | |
| Total | 35 | | | | |

**) Berbeda nyata pada taraf 5%

* Uji lanjutan DMRT (*Duncan's Multiple Range Test*)

$$\text{Simpangan baku (s)} = (\text{KTG})^{1/2} = (6,281)^{1/2} = 2,506$$

| P | rp (0,05) | s | RP' |
|---|-----------|---------|-------|
| 2 | (2,884) | (2,506) | 7,227 |
| 3 | (3,034) | (2,506) | 7,603 |
| 4 | (3,114) | (2,506) | 7,804 |

| Perlakuan | A | B | D | C |
|-------------|-------|-------|-------|-------|
| Rata - rata | 7,912 | 8,163 | 8,346 | 8,488 |
| Ulangan | 9 | 9 | 9 | 8 |

* LSR (0,05)

* C

$$D = (7,227) (1/2 (1/9 + 1/8))^{1/2} = 2,483$$

$$B = (7,603) (1/2 (1/9 + 1/9))^{1/2} = 2,543$$

$$A = (7,804) (1/2 (1/9 + 1/9))^{1/2} = 2,601$$

* D

$$B = (7,227) (1/2 (1/8 + 1/9))^{1/2} = 2,483$$

$$A = (7,603) (1/2 (1/8 + 1/9))^{1/2} = 2,612$$

* B

$$A = (7,227) (1/2 (1/9 + 1/9))^{1/2} = 2,409$$

Lampiran 7. Uji Duncan panjang total rata - rata berudu katak benggala

| Perlakuan | $X_i - X_j$ | LSR (0,05) |
|-----------|-------------|------------|
| C dan D | 0,142 a | 2,483 |
| C dan B | 0,325 a | 2,543 |
| C dan A | 0,576 a | 2,601 |
| D dan B | 0,183 a | 2,483 |
| D dan A | 0,434 a | 2,612 |
| B dan A | 0,251 a | 2,409 |

Keterangan : Angka dengan huruf yang sama berarti tidak berbeda nyata

Lampiran 8. Data panjang ekor rata - rata berudu katak benggala

| Pengamatan (r) | Perlakuan (t) | | | | Total |
|---------------------------|---------------|---------------|---------------|---------------|----------------|
| | A | B | C | D | |
| 1 | 6,330 | 6,460 | 6,443 | 6,467 | |
| 2 | 6,553 | 6,676 | 6,790 | 6,883 | |
| 3 | 6,850 | 7,020 | 7,300 | 7,473 | |
| 4 | 7,217 | 7,307 | 7,513 | 7,803 | |
| 5 | 7,483 | 7,560 | 7,747 | 6,363 | |
| 6 | 6,110 | 6,213 | 6,437 | 3,890 | |
| 7 | 3,353 | 3,587 | 3,753 | 1,143 | |
| 8 | 1,507 | 1,507 | 1,273 | 0,000 | |
| 9 | 0,000 | 0,000 | 0,000 | | |
| Jumlah (Yi) | <u>45,403</u> | <u>46,316</u> | <u>47,256</u> | <u>40,022</u> | 178,997 (Y) |
| Rata-rata (\bar{Y}_i) | 9 | 9 | 9 | 8 | |
| | 5,045 | 5,146 | 5,251 | 5,003 | |

$$Db \text{ total} = 36 - 1 = 35$$

$$Db \text{ perlakuan} = 4 - 1 = 3$$

$$Db \text{ galat} = 35 - 3 = 32$$

$$\begin{aligned} \text{Faktor koreksi (FK)} &= \frac{Y^2}{rt} = \frac{(\text{total jendral})^2}{\text{total banyaknya pengamatan}} = \frac{(178,997)^2}{(9)(4)} \\ &= 889,998 \end{aligned}$$

$$\begin{aligned} \text{JK total (JKT)} &= \sum_{ij} Y_{ij}^2 - \text{FK} \\ &= (6,303)^2 + (6,553)^2 + \dots + \dots + (1,143)^2 - \text{FK} \\ &= 1166,048 - 889,998 = 276,050 \end{aligned}$$

$$\text{JK perlakuan (JKP)} = \sum_r \frac{Y_r^2}{r} - \text{FK}$$

$$\begin{aligned}
 &= \sum \frac{(\text{total perlakuan})^2}{r} - FK \\
 &= \frac{(45,403)^2}{9} + \frac{(46,316)^2}{9} + \frac{(47,256)^2}{9} + \frac{(40,022)^2}{8} - 276,050 \\
 &= 915,746 - 889,998 = 25,748
 \end{aligned}$$

$$\begin{aligned}
 \text{JK galat (JKG)} &= \text{JKT} - \text{JKP} \\
 &= 276,050 - 25,748 = 250,302
 \end{aligned}$$

$$\begin{aligned}
 \text{KT perlakuan (KTP)} &= \frac{\text{JK Perlakuan}}{t - 1} = \frac{25,748}{3} \\
 &= 8,583
 \end{aligned}$$

$$\begin{aligned}
 \text{KT galat (KTG)} &= \frac{\text{JK Galat}}{\text{Db galat}} = \frac{250,302}{32} = 7,822
 \end{aligned}$$

$$\begin{aligned}
 \text{F hitung} &= \frac{\text{KT Perlakuan}}{\text{KT Galat}} = \frac{8,583}{7,822} = 1,097
 \end{aligned}$$

Lampiran 9. Analisis varian panjang ekor rata - rata berudu katak benggala

| Sumber keragaman | DB | JK | KT | F hitung | F tabel (0,05) |
|------------------|----|---------|-------|----------|----------------|
| Perlakuan | 3 | 25,784 | 8,583 | 1,097* | 2,90 |
| Galat | 32 | 250,302 | 7,822 | | |
| Total | 35 | | | | |

*) Tidak ber beda nyata pada taraf 5%

Lampiran 10. Data berat badan rata - rata berudu katak bengala sampai metamorfosis klimaks

| Penamatan hari ke- | Perlakuan | | | |
|-----------------------|-----------|--------|--------|--------|
| | A | B | C | D |
| 0 | 8,320 | 8,370 | 8,340 | 8,467 |
| 7 | 8,640 | 8,763 | 8,787 | 9,203 |
| 14 | 9,203 | 9,487 | 9,773 | 10,467 |
| 21 | 9,787 | 10,290 | 10,627 | 11,543 |
| 28 | 10,463 | 11,000 | 11,430 | - |

* Rumus laju pertumbuhan menurut Weatherley (1972) :

$$Y_T = Y_t e^{q(T-t)}$$

$$e^{q(T-t)} = Y_T / Y_t$$

$$q(T-t) = \ln(Y_T / Y_t)$$

$$q = \frac{\ln(Y_T / Y_t)}{(T-t)}$$

$$\text{persentase/hari} = q \times 100\%$$

| Hari ke- | T - t | A | | | B | | |
|-------------|-------|----------------|----------------|-------|----------------|----------------|-------|
| | | Y _T | Y _t | q | Y _T | Y _t | q |
| 7 | 7 | 8,640 | 8,320 | 0,539 | 8,763 | 8,370 | 0,655 |
| 14 | 7 | 9,203 | 8,640 | 0,902 | 9,487 | 8,763 | 1,134 |
| 21 | 7 | 9,787 | 9,203 | 0,879 | 10,290 | 9,487 | 1,161 |
| 28 | 7 | 10,463 | 9,787 | 0,954 | 11,000 | 10,290 | 0,953 |

$$\begin{aligned} \text{Faktor koreksi (FK)} &= \frac{Y^2}{rt} = \frac{(\text{total jendral})^2}{\text{total banyaknya pengamatan}} = \frac{(16,106)^2}{(4)(4)} \\ &= 16,213 \end{aligned}$$

$$\begin{aligned} \text{JK total (JKT)} &= \sum_{ij} Y_{ij}^2 - \text{FK} \\ &= (0,539)^2 + (0,902)^2 + \dots + \dots + (1,398)^2 - \text{FK} \\ &= 18,890 - 16,213 = 2,677 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan (JKP)} &= \sum \frac{Y_1^2 + \dots + Y_t^2}{r} - \text{FK} \\ &= \sum \frac{(\text{total perlakuan})^2}{r} - \text{FK} \\ &= \frac{(3,272)^2}{4} + \frac{(3,904)^2}{4} + \frac{(4,503)^2}{4} + \frac{(4,427)^2}{3} - 14,921 \\ &= 18,089 - 16,213 \\ &= 1,876 \end{aligned}$$

$$\begin{aligned} \text{JK galat (JKG)} &= \text{JKT} - \text{JKP} \\ &= 2,677 - 1,876 = 0,801 \end{aligned}$$

$$\text{KT perlakuan (KTP)} = \frac{\text{JK Perlakuan}}{t-1} = \frac{1,876}{3} = 0,625$$

$$\text{KT galat (KTG)} = \frac{\text{JK Galat}}{\text{Db galat}} = \frac{0,801}{12} = 0,067$$

$$\text{F hitung} = \frac{\text{KT Perlakuan}}{\text{KT Galat}} = \frac{0,625}{0,067} = 9,328$$

Lampiran 12. Analisis varian laju pertumbuhan spesifik berudu katak bengala

| Sumber keragaman | DB | JK | KT | F hitung | F tabel (0,05) |
|------------------|----|-------|-------|----------|----------------|
| Perlakuan | 3 | 1,876 | 0,625 | 9,328 ** | 3,49 |
| Galat | 12 | 0,801 | 0,067 | | |
| Total | 15 | | | | |

**) Berbeda nyata pada taraf 5%

✳ Uji lanjutan DMRT (*Duncan's Multiple Range Test*) signifikansi 5%

$$\text{Simpangan baku (s)} = (\text{KTG})^{1/2} = (0,067)^{1/2} = 0,259$$

| P | rp (0,05) | s | RP |
|---|-----------|---------|-------|
| 2 | (3,08) | (0,259) | 0,798 |
| 3 | (3,23) | (0,259) | 0,837 |
| 4 | (3,33) | (0,259) | 0,863 |

| Perlakuan | A | B | C | D |
|-------------|-------|-------|-------|-------|
| Rata - rata | 0,818 | 0,976 | 1,126 | 1,476 |
| Ulangan | 4 | 4 | 4 | 3 |

✳ LSR (0,05)

* D

$$C = (0,798) (1/2 (1/3 + 1/4))^{1/2} = 0,431$$

$$B = (0,837) (1/2 (1/3 + 1/4))^{1/2} = 0,452$$

$$A = (0,863) (1/2 (1/3 + 1/4))^{1/2} = 0,466$$

* C

$$B = (0,798) (1/2 (1/4 + 1/4))^{1/2} = 0,399$$

$$A = (0,837) (1/2 (1/4 + 1/4))^{1/2} = 0,418$$

* B

$$A = (0,798) (1/2 (1/4 + 1/4))^{1/2} = 0,399$$

Lampiran 13. Uji Duncan laju pertumbuhan spesifik berudu katak bengala

| Perlakuan | $X_i - X_j$ | LSR (0,05) |
|-----------|-------------|------------|
| D dan C | 0,350 a | 0,431 |
| D dan B | 0,500 | 0,452 |
| D dan A | 0,658 | 0,466 |
| C dan B | 0,150 a b | 0,399 |
| C dan A | 0,308 b | 0,418 |
| B dan A | 0,223 b c | 0,399 |

Keterangan : Angka dengan huruf yang sama berarti tidak berbeda nyata

Lampiran 14. Data jumlah berudu katak bengala yang hidup hingga selama penelitian

| Perlakuan | Jumlah berudu awal | Jumlah berudu akhir |
|-----------|--------------------|---------------------|
| A | 30 | 24 |
| B | 30 | 28 |
| C | 30 | 29 |
| D | 30 | 29 |

$$\text{Derajat kelangsungan hidup (SR)} = \frac{N_t}{N_o} \times 100\%$$

Perlakuan :

$$A = 24/30 \times 100 = 80\%$$

$$B = 28/30 \times 100 = 93,333\%$$

$$C = 29/30 \times 100 = 96,667\%$$

$$D = 29/30 \times 100 = 96,667\%$$