**Penjelasan Data untuk Perhitungan Densitas *Zooxanthellae***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hari  Ke- | Ulangan | 25 ‰ 30 ‰ 35 ‰ | | | | | | | | |
|  | Luas  (cm) | Σ Sel | Densitas  (sel/cm2) | Luas  (cm) | Σ Sel | Densitas  (sel/cm2) | Luas  (cm) | Σ Sel | Densitas  (sel/cm2) |
| 0 | 1 | 23,43 | 462 | 1.971.831 | 18,74 | 334 | 1.782.284 | 14,1 | 337 | 2.390.071 |
|  | 2 | 23,43 | 438 | 1.869.398 | 18,74 | 323 | 1.723.586 | 14,1 | 332 | 2.354.610 |
| 3 | 1 | 17,62 | 322 | 1.827.469 | 21,33 | 331 | 1.551.805 | 17,48 | 334 | 1.910.755 |
|  | 2  1 | 17,62  11,38 | 300  178 | 1.702.611  1.564.148 | 21,33  9,28 | 306  110 | 1.434.599  1.185.345 | 17,48  9,94 | 321  181 | 1.836.384  1.820.926 |
| 6 |
|  | 2  1 | 11,38  14,48 | 168  174 | 1.476.274  1.201.657 | 9,28  14,54 | 101  182 | 1.088.362  1.251.719 | 9,94  6,27 | 170  59 | 1.710.262  940.989 |
| 9 |
|  | 2 | 14,48 | 137 | 946.132,6 | 14,54 | 174 | 1.196.699 | 6,27 | 55 | 877.193 |

**Hasil Uji Analisis Regresi Pengaruh Salinitas 25 ‰ Terhadap Densitas *Zooxanthellae***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  | |  | |  |  |
|  |  |  |  |  |  | |  | |  |  |
| *Regression Statistics* | |  |  |  |  | |  | |  |  |
| Multiple R | 0,944912 |  |  |  |  | |  | |  |  |
| R Square | 0,892858 |  |  |  |  | |  | |  |  |
| Adjusted R Square | 0,875001 |  |  |  |  | |  | |  |  |
| Standard Error | 124548 |  |  |  |  | |  | |  |  |
| Observations | 8 |  |  |  |  | |  | |  |  |
|  |  |  |  |  |  | |  | |  |  |
| ANOVA |  |  |  |  |  | |  | |  |  |
|  | *Df* | *SS* | *MS* | *F* | *Significance F* | |  | |  |  |
| Regression | 1 | 7,76E+11 | 7,76E+11 | 50,00038 | 0,000401 | |  | |  |  |
| Residual | 6 | 9,31E+10 | 1,55E+10 |  |  | |  | |  |  |
| Total | 7 | 8,69E+11 |  |  |  | |  | |  |  |
|  |  |  |  |  |  | |  | |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | |
| Intercept | 1987688 | 73683,56 | 26,97601 | 1,71E-07 | 1807391 | 2167985 | |
| X Variable 1 | -92832,9 | 13128,51 | -7,07109 | 0,000401 | -124957 | -60708,6 | |

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**Hasil Uji Analisis Regresi Pengaruh Salinitas 35 ‰ Terhadap Densitas *Zooxanthellae***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0,95281 |  |  |  |  |  |  |  |
| R Square | 0,907847 |  |  |  |  |  |  |  |
| Adjusted R Square | 0,892488 |  |  |  |  |  |  |  |
| Standard Error | 184997,2 |  |  |  |  |  |  |  |
| Observations | 8 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *Df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 2,02E+12 | 2,02E+12 | 59,10926 | 0,000254 |  |  |  |
| Residual | 6 | 2,05E+11 | 3,42E+10 |  |  |  |  |  |
| Total | 7 | 2,23E+12 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
| Intercept | 2404807 | 109445,8 | 21,97259 | 5,81E-07 | 2137003 | 2672612 |
| X Variable 1 | -149924 | 19500,42 | -7,68825 | 0,000254 | -197640 | -102208 |

**Penjelasan Hasil Uji Analisis Anova 2 Arah Pengaruh Konsentrasi dan Waktu Terhadap Densitas *Zooxanthellae***

|  |  |  |
| --- | --- | --- |
| **Between-Subjects Factors** | | |
|  | | N |
| Konsentrasi | 25 | 8 |
| 30 | 8 |
| 35 | 8 |
| Hari | 0 | 6 |
| 3 | 6 |
| 6 | 6 |
| 9 | 6 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | |
| Dependent Variable: Zooxanthellae | | | | |
| Konsentrasi | Hari | Mean | Std. Deviation | N |
| 25 | 0 | 1920614,5000 | 72431,06892 | 2 |
| 3 | 1765040,0000 | 88287,93849 | 2 |
| 6 | 1520211,0000 | 62136,30129 | 2 |
| 9 | 1073895,0000 | 180682,75316 | 2 |
| Total | 1569940,1250 | 352275,99932 | 8 |
| 30 | 0 | 1752935,0000 | 41505,75384 | 2 |
| 3 | 1493202,0000 | 82877,15740 | 2 |
| 6 | 1136853,5000 | 68577,33696 | 2 |
| 9 | 1222145,5000 | 38905,72221 | 2 |
| Total | 1401284,0000 | 262692,30487 | 8 |
| 35 | 0 | 2372340,5000 | 25074,71357 | 2 |
| 3 | 1873569,5000 | 52588,23842 | 2 |
| 6 | 1765594,0000 | 78251,26483 | 2 |
| 9 | 909091,0000 | 45110,58421 | 2 |
| Total | 1730148,7500 | 564205,68553 | 8 |
| Total | 0 | 2015296,6667 | 289190,26266 | 6 |
| 3 | 1710603,8333 | 184931,46293 | 6 |
| 6 | 1474219,5000 | 288564,48225 | 6 |
| 9 | 1068377,1667 | 163883,70068 | 6 |
| Total | 1567124,2917 | 417692,36747 | 24 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Levene's Test of Equality of Error Variancesa** | | | |
| Dependent Variable: Zooxanthellae | | | |
| F | df1 | df2 | Sig. |
| . | 11 | 12 | . |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | |
| a. Design: Intercept + Salinitas + Waktu + Salinitas \* Waktu | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tests of Between-Subjects Effects** | | | | | |
| Dependent Variable: Zooxanthellae | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Corrected Model | 3936830474848,459a | 11 | 357893679531,678 | 56,578 | ,000 |
| Intercept | 58941085092762,100 | 1 | 58941085092762,100 | 9317,700 | ,000 |
| Salinitas | 432703242178,583 | 2 | 216351621089,292 | 34,202 | ,000 |
| Waktu | 2872949109602,460 | 3 | 957649703200,820 | 151,390 | ,000 |
| Salinitas \* Waktu | 631178123067,417 | 6 | 105196353844,569 | 16,630 | ,000 |
| Error | 75908543574,500 | 12 | 6325711964,542 |  |  |
| Total | 62953824111185,000 | 24 |  |  |  |
| Corrected Total | 4012739018422,959 | 23 |  |  |  |
| a. R Squared = ,981 (Adjusted R Squared = ,964) | | | | | |

Estimated Marginal Means

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1. Konsentrasi** | | | | | | | | | | | | | |
| Dependent Variable: Zooxanthellae | | | | | | | | | | | | | |
| Konsentrasi | | Mean | | | Std. Error | | | 95% Confidence Interval | | | | | |
| Lower Bound | | | Upper Bound | | |
| 25 | | 1569940,125 | | | 28119,637 | | | 1508672,699 | | | 1631207,551 | | |
| 30 | | 1401284,000 | | | 28119,637 | | | 1340016,574 | | | 1462551,426 | | |
| 35 | | 1730148,750 | | | 28119,637 | | | 1668881,324 | | | 1791416,176 | | |
| **2. Hari** | | | | | | | | | | | | |
| Dependent Variable: Zooxanthellae | | | | | | | | | | | | |
| Hari | Mean | | | Std. Error | | 95% Confidence Interval | | | | | | |
| Lower Bound | | | | Upper Bound | | |
| 0 | 2015296,667 | | | 32469,760 | | 1944551,137 | | | | 2086042,197 | | |
| 3 | 1710603,833 | | | 32469,760 | | 1639858,303 | | | | 1781349,363 | | |
| 6 | 1474219,500 | | | 32469,760 | | 1403473,970 | | | | 1544965,030 | | |
| 9 | 1068377,167 | | | 32469,760 | | 997631,637 | | | | 1139122,697 | | |
| **3. Konsentrasi \* Hari** | | | | | | | | | | | | | | |
| Dependent Variable: Zooxanthellae | | | | | | | | | | | | | | |
| Konsentrasi | | Hari | Mean | | | | Std. Error | | 95% Confidence Interval | | | | | |
| Lower Bound | | | Upper Bound | | |
| 25 | | 0 | 1920614,500 | | | | 56239,274 | | 1798079,647 | | | 2043149,353 | | |
| 3 | 1765040,000 | | | | 56239,274 | | 1642505,147 | | | 1887574,853 | | |
| 6 | 1520211,000 | | | | 56239,274 | | 1397676,147 | | | 1642745,853 | | |
| 9 | 1073895,000 | | | | 56239,274 | | 951360,147 | | | 1196429,853 | | |
| 30 | | 0 | 1752935,000 | | | | 56239,274 | | 1630400,147 | | | 1875469,853 | | |
| 3 | 1493202,000 | | | | 56239,274 | | 1370667,147 | | | 1615736,853 | | |
| 6 | 1136853,500 | | | | 56239,274 | | 1014318,647 | | | 1259388,353 | | |
| 9 | 1222145,500 | | | | 56239,274 | | 1099610,647 | | | 1344680,353 | | |
| 35 | | 0 | 2372340,500 | | | | 56239,274 | | 2249805,647 | | | 2494875,353 | | |
| 3 | 1873569,500 | | | | 56239,274 | | 1751034,647 | | | 1996104,353 | | |
| 6 | 1765594,000 | | | | 56239,274 | | 1643059,147 | | | 1888128,853 | | |
| 9 | 909091,000 | | | | 56239,274 | | 786556,147 | | | 1031625,853 | | |

Post Hoc Test Konsentrasi

Konsentrasi

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: Zooxanthellae | | | | | | | |
|  | (I) Konsentrasi | (J) Konsentrasi | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 25 | 30 | 168656,1250\* | 39767,17228 | ,003 | 62562,7312 | 274749,5188 |
| 35 | -160208,6250\* | 39767,17228 | ,004 | -266302,0188 | -54115,2312 |
| 30 | 25 | -168656,1250\* | 39767,17228 | ,003 | -274749,5188 | -62562,7312 |
| 35 | -328864,7500\* | 39767,17228 | ,000 | -434958,1438 | -222771,3562 |
| 35 | 25 | 160208,6250\* | 39767,17228 | ,004 | 54115,2312 | 266302,0188 |
| 30 | 328864,7500\* | 39767,17228 | ,000 | 222771,3562 | 434958,1438 |
| Bonferroni | 25 | 30 | 168656,1250\* | 39767,17228 | ,003 | 58124,3393 | 279187,9107 |
| 35 | -160208,6250\* | 39767,17228 | ,005 | -270740,4107 | -49676,8393 |
| 30 | 25 | -168656,1250\* | 39767,17228 | ,003 | -279187,9107 | -58124,3393 |
| 35 | -328864,7500\* | 39767,17228 | ,000 | -439396,5357 | -218332,9643 |
| 35 | 25 | 160208,6250\* | 39767,17228 | ,005 | 49676,8393 | 270740,4107 |
| 30 | 328864,7500\* | 39767,17228 | ,000 | 218332,9643 | 439396,5357 |
| Based on observed means.  The error term is Mean Square(Error) = 6325711964,542. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Homogeneous subset  **Zooxanthellae** | | | | | |
|  | Konsentrasi | N | Subset | | |
|  | 1 | 2 | 3 |
| Tukey HSDa,b | 30 | 8 | 1401284,0000 |  |  |
| 25 | 8 |  | 1569940,1250 |  |
| 35 | 8 |  |  | 1730148,7500 |
| Sig. |  | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 6325711964,542. | | | | | |
| a. Uses Harmonic Mean Sample Size = 8,000. | | | | | |
| b. Alpha = ,05. | | | | | |

Hari

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: Zooxanthellae | | | | | | | |
|  | (I) Hari | (J) Hari | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 0 | 3 | 304692,8333\* | 45919,17524 | ,000 | 168363,3425 | 441022,3242 |
| 6 | 541077,1667\* | 45919,17524 | ,000 | 404747,6758 | 677406,6575 |
| 9 | 946919,5000\* | 45919,17524 | ,000 | 810590,0091 | 1083248,9909 |
| 3 | 0 | -304692,8333\* | 45919,17524 | ,000 | -441022,3242 | -168363,3425 |
| 6 | 236384,3333\* | 45919,17524 | ,001 | 100054,8425 | 372713,8242 |
| 9 | 642226,6667\* | 45919,17524 | ,000 | 505897,1758 | 778556,1575 |
| 6 | 0 | -541077,1667\* | 45919,17524 | ,000 | -677406,6575 | -404747,6758 |
| 3 | -236384,3333\* | 45919,17524 | ,001 | -372713,8242 | -100054,8425 |
| 9 | 405842,3333\* | 45919,17524 | ,000 | 269512,8425 | 542171,8242 |
| 9 | 0 | -946919,5000\* | 45919,17524 | ,000 | -1083248,9909 | -810590,0091 |
| 3 | -642226,6667\* | 45919,17524 | ,000 | -778556,1575 | -505897,1758 |
| 6 | -405842,3333\* | 45919,17524 | ,000 | -542171,8242 | -269512,8425 |
| Bonferroni | 0 | 3 | 304692,8333\* | 45919,17524 | ,000 | 159924,3077 | 449461,3590 |
| 6 | 541077,1667\* | 45919,17524 | ,000 | 396308,6410 | 685845,6923 |
| 9 | 946919,5000\* | 45919,17524 | ,000 | 802150,9743 | 1091688,0257 |
| 3 | 0 | -304692,8333\* | 45919,17524 | ,000 | -449461,3590 | -159924,3077 |
| 6 | 236384,3333\* | 45919,17524 | ,001 | 91615,8077 | 381152,8590 |
| 9 | 642226,6667\* | 45919,17524 | ,000 | 497458,1410 | 786995,1923 |
| 6 | 0 | -541077,1667\* | 45919,17524 | ,000 | -685845,6923 | -396308,6410 |
| 3 | -236384,3333\* | 45919,17524 | ,001 | -381152,8590 | -91615,8077 |
| 9 | 405842,3333\* | 45919,17524 | ,000 | 261073,8077 | 550610,8590 |
| 9 | 0 | -946919,5000\* | 45919,17524 | ,000 | -1091688,0257 | -802150,9743 |
| 3 | -642226,6667\* | 45919,17524 | ,000 | -786995,1923 | -497458,1410 |
| 6 | -405842,3333\* | 45919,17524 | ,000 | -550610,8590 | -261073,8077 |
| Based on observed means.  The error term is Mean Square(Error) = 6325711964,542. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

Homogeneous Subset

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Zooxanthellae** | | | | | | |
|  | Hari | N | Subset | | | |
|  | 1 | 2 | 3 | 4 |
| Tukey HSDa,b | 9 | 6 | 1068377,1667 |  |  |  |
| 6 | 6 |  | 1474219,5000 |  |  |
| 3 | 6 |  |  | 1710603,8333 |  |
| 0 | 6 |  |  |  | 2015296,6667 |
| Sig. |  | 1,000 | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 6325711964,542. | | | | | | |
| a. Uses Harmonic Mean Sample Size = 6,000. | | | | | | |
| b. Alpha = ,05. | | | | | | |

**Tabel Perhitungan Fotosintesis (NPP), Respirasi dan *Gross Primary Productivity* (GPP) pada Salinitas 25 ‰**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hari ke- | Ulangan | DO Awal (mg/l) | DO Terang (mg/l) | DO Gelap (mg/l) | Fotosintesis (mgC/m2/Jam) | Respirasi (mgC/m2/Jam) | GPP (mgC/m2/Jam) |
| 0 | 1 | 5,98 | 8,63 | 3,74 | 207,03 | 175,00 | 382,03 |
|  | 2 | 6 | 8,67 | 3,73 | 208,59 | 177,34 | 385,94 |
| 3 | 1 | 6,4 | 8,53 | 3,9 | 166,41 | 195,31 | 361,72 |
|  | 2 | 6,37 | 8,55 | 3,92 | 170,31 | 191,41 | 361,72 |
| 6 | 1 | 5,8 | 8,79 | 4 | 233,59 | 140,63 | 374,22 |
|  | 2 | 5,85 | 8,62 | 3,8 | 216,41 | 160,16 | 376,56 |
| 9 | 1 | 5,96 | 7,69 | 4,23 | 135,16 | 135,16 | 270,31 |
|  | 2 | 6,1 | 7,7 | 4,2 | 125,00 | 148,44 | 273,44 |

**Tabel Perhitungan Fotosintesis (NPP), Respirasi dan *Gross Primary Productivity* (GPP) pada Salinitas 30 ‰**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hari ke- | Ulangan | DO Awal (mg/l) | DO Terang (mg/l) | DO Gelap (mg/l) | Fotosintesis (mgC/m2/Jam) | Respirasi (mgC/m2/Jam) | GPP (mgC/m2/Jam) |
| 0 hari | 1 | 5,98 | 8,6 | 4,96 | 204,69 | 79,69 | 284,38 |
|  | 2 | 6 | 8,67 | 4,98 | 208,59 | 79,69 | 288,28 |
| 3 hari | 1 | 6 | 9,18 | 3,82 | 248,44 | 170,31 | 418,75 |
|  | 2 | 5,92 | 8,98 | 3,82 | 239,06 | 164,06 | 403,13 |
| 6 hari | 1 | 5,96 | 9,59 | 3,97 | 283,59 | 155,47 | 439,06 |
|  | 2 | 5,94 | 9,59 | 4 | 285,16 | 151,56 | 436,72 |
| 9 hari | 1 | 5,87 | 7,69 | 3,8 | 142,19 | 161,72 | 303,91 |
|  | 2 | 5,91 | 7,63 | 4 | 134,38 | 149,22 | 283,59 |

**Tabel Perhitungan Fotosintesis (NPP), Respirasi dan *Gross Primary Productivity* (GPP) pada Salinitas 35 ‰**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hari ke- | Ulangan | DO Awal (mg/l) | DO Terang (mg/l) | DO Gelap (mg/l) | Fotosintesis (mgC/m2/Jam) | Respirasi (mgC/m2/Jam) | GPP (mgC/m2/Jam) |
| 0 | 1 | 6,26 | 8,67 | 3,76 | 188,28 | 195,31 | 383,59 |
|  | 2 | 6,3 | 8,65 | 3,74 | 183,59 | 200,00 | 383,59 |
| 3 | 1 | 6,11 | 8,88 | 3,88 | 216,41 | 174,22 | 390,63 |
|  | 2 | 6,07 | 8,83 | 3,86 | 215,63 | 172,66 | 388,28 |
| 6 | 1 | 5,95 | 6,00 | 5,92 | 3,91 | 2,34 | 6,25 |
|  | 2 | 5,90 | 6,05 | 5,85 | 11,72 | 3,91 | 15,63 |
| 9 | 1 | 5,96 | 6,13 | 5,89 | 13,28 | 5,47 | 18,75 |
|  | 2 | 5,94 | 6,13 | 5,88 | 14,84 | 4,69 | 19,53 |

**Hail Uji Analisis Regresi Sederhana Pengaruh Densitas *Zooxanthellae* terhadap Fotosintesis (NPP)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0,228441 |  |  |  |  |  |  |  |
| R Square | 0,052185 |  |  |  |  |  |  |  |
| Adjusted R Square | 0,009103 |  |  |  |  |  |  |  |
| Standard Error | 83,06076 |  |  |  |  |  |  |  |
| Observations | 24 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *Df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 8356,8 | 8356,8 | 1,21129 | 0,282974 |  |  |  |
| Residual | 22 | 151780 | 6899,09 |  |  |  |  |  |
| Total | 23 | 160136,8 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
| Intercept | 97,49487 | 67,15539 | 1,45178 | 0,160675 | -41,7769 | 236,7666 |
| X Variable 1 | 4,56E-05 | 4,15E-05 | 1,100586 | 0,282974 | -4E-05 | 0,000132 |

**Hasil Uji Analisis Regresi Sederhana Pengaruh Densitas *Zooxanthellae* terhadap Respirasi**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0,363076 |  |  |  |  |  |  |  |
| R Square | 0,131824 |  |  |  |  |  |  |  |
| Adjusted R Square | 0,092362 |  |  |  |  |  |  |  |
| Standard Error | 62,86576 |  |  |  |  |  |  |  |
| Observations | 24 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *Df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 13201,96 | 13201,96 | 3,34049 | 0,08119 |  |  |  |
| Residual | 22 | 86946,28 | 3952,104 |  |  |  |  |  |
| Total | 23 | 100148,2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
| Intercept | 43,18565 | 50,82755 | 0,84965 | 0,404671 | -62,2242 | 148,5955 |
| X Variable 1 | 5,74E-05 | 3,14E-05 | 1,827701 | 0,08119 | -7,7E-06 | 0,000122 |

**Hasil Uji Analisis Regresi Sederhana Pengaruh Densitas *Zooxanthellae* terhadap GPP**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0,306569 |  |  |  |  |  |  |  |
| R Square | 0,093984 |  |  |  |  |  |  |  |
| Adjusted R Square | 0,052802 |  |  |  |  |  |  |  |
| Standard Error | 136,574 |  |  |  |  |  |  |  |
| Observations | 24 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *Df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 42567,51 | 42567,51 | 2,28214 | 0,145102 |  |  |  |
| Residual | 22 | 410354 | 18652,45 |  |  |  |  |  |
| Total | 23 | 452921,5 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
| Intercept | 140,6768 | 110,4213 | 1,274001 | 0,215958 | -88,323 | 369,6767 |
| X Variable 1 | 0,000103 | 6,82E-05 | 1,510675 | 0,145102 | -3,8E-05 | 0,000244 |

**Hasil Uji Analisis Anova 2 Arah Pengaruh Konsentrasi dan Waktu terhadap Fotosintesis (NPP)**

|  |  |  |
| --- | --- | --- |
| **Between-Subjects Factors** | | |
|  | | N |
| Konsentrasi | 25 | 8 |
| 30 | 8 |
| 35 | 8 |
| Hari | 0 | 6 |
| 3 | 6 |
| 6 | 6 |
| 9 | 6 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | |
| Dependent Variable: NPP | | | | |
| Konsentrasi | Hari | Mean | Std. Deviation | N |
| 25 | 0 | 207,8125 | 1,10521 | 2 |
| 3 | 168,3595 | 2,76267 | 2 |
| 6 | 225,0000 | 12,15375 | 2 |
| 9 | 130,0780 | 7,18138 | 2 |
| Total | 182,8125 | 39,63646 | 8 |
| 30 | 0 | 206,6400 | 2,75772 | 2 |
| 3 | 243,7500 | 6,63266 | 2 |
| 6 | 284,3750 | 1,11016 | 2 |
| 9 | 138,2850 | 5,52250 | 2 |
| Total | 218,2625 | 57,55400 | 8 |
| 35 | 0 | 185,9350 | 3,31633 | 2 |
| 3 | 216,0200 | ,55154 | 2 |
| 6 | 7,8150 | 5,52250 | 2 |
| 9 | 14,0600 | 1,10309 | 2 |
| Total | 105,9575 | 102,27241 | 8 |
| Total | 0 | 200,1292 | 11,18591 | 6 |
| 3 | 209,3765 | 34,25803 | 6 |
| 6 | 172,3967 | 130,35813 | 6 |
| 9 | 94,1410 | 62,27285 | 6 |
| Total | 169,0108 | 83,44162 | 24 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Levene's Test of Equality of Error Variancesa** | | | |
| Dependent Variable: NPP | | | |
| F | df1 | df2 | Sig. |
| . | 11 | 12 | . |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | |
| a. Design: Intercept + Salinitas + Waktu + Salinitas \* Waktu | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tests of Between-Subjects Effects** | | | | | |
| Dependent Variable: NPP | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Corrected Model | 159803,115a | 11 | 14527,556 | 521,192 | ,000 |
| Intercept | 685551,883 | 1 | 685551,883 | 24594,933 | ,000 |
| Salinitas | 52735,484 | 2 | 26367,742 | 945,972 | ,000 |
| Waktu | 49288,161 | 3 | 16429,387 | 589,422 | ,000 |
| Salinitas \* Waktu | 57779,470 | 6 | 9629,912 | 345,484 | ,000 |
| Error | 334,484 | 12 | 27,874 |  |  |
| Total | 845689,482 | 24 |  |  |  |
| Corrected Total | 160137,599 | 23 |  |  |  |
| a. R Squared = ,998 (Adjusted R Squared = ,996) | | | | | |

**Estimated Marginal Means**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1. Konsentrasi** | | | | |
| Dependent Variable: NPP | | | | |
| Konsentrasi | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 182,812 | 1,867 | 178,746 | 186,879 |
| 30 | 218,263 | 1,867 | 214,196 | 222,329 |
| 35 | 105,958 | 1,867 | 101,891 | 110,024 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2. Hari** | | | | |
| Dependent Variable: NPP | | | | |
| Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 0 | 200,129 | 2,155 | 195,433 | 204,825 |
| 3 | 209,377 | 2,155 | 204,680 | 214,073 |
| 6 | 172,397 | 2,155 | 167,701 | 177,093 |
| 9 | 94,141 | 2,155 | 89,445 | 98,837 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **3. Konsentrasi \* Hari** | | | | | |
| Dependent Variable: NPP | | | | | |
| Konsentrasi | Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 0 | 207,813 | 3,733 | 199,679 | 215,946 |
| 3 | 168,359 | 3,733 | 160,226 | 176,493 |
| 6 | 225,000 | 3,733 | 216,866 | 233,134 |
| 9 | 130,078 | 3,733 | 121,944 | 138,212 |
| 30 | 0 | 206,640 | 3,733 | 198,506 | 214,774 |
| 3 | 243,750 | 3,733 | 235,616 | 251,884 |
| 6 | 284,375 | 3,733 | 276,241 | 292,509 |
| 9 | 138,285 | 3,733 | 130,151 | 146,419 |
| 35 | 0 | 185,935 | 3,733 | 177,801 | 194,069 |
| 3 | 216,020 | 3,733 | 207,886 | 224,154 |
| 6 | 7,815 | 3,733 | -,319 | 15,949 |
| 9 | 14,060 | 3,733 | 5,926 | 22,194 |

**Post Hoc Test**

**Konsentrasi**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: NPP | | | | | | | |
|  | (I) Konsentrasi | (J) Konsentrasi | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 25 | 30 | -35,4500\* | 2,63978 | ,000 | -42,4926 | -28,4074 |
| 35 | 76,8550\* | 2,63978 | ,000 | 69,8124 | 83,8976 |
| 30 | 25 | 35,4500\* | 2,63978 | ,000 | 28,4074 | 42,4926 |
| 35 | 112,3050\* | 2,63978 | ,000 | 105,2624 | 119,3476 |
| 35 | 25 | -76,8550\* | 2,63978 | ,000 | -83,8976 | -69,8124 |
| 30 | -112,3050\* | 2,63978 | ,000 | -119,3476 | -105,2624 |
| Bonferroni | 25 | 30 | -35,4500\* | 2,63978 | ,000 | -42,7872 | -28,1128 |
| 35 | 76,8550\* | 2,63978 | ,000 | 69,5178 | 84,1922 |
| 30 | 25 | 35,4500\* | 2,63978 | ,000 | 28,1128 | 42,7872 |
| 35 | 112,3050\* | 2,63978 | ,000 | 104,9678 | 119,6422 |
| 35 | 25 | -76,8550\* | 2,63978 | ,000 | -84,1922 | -69,5178 |
| 30 | -112,3050\* | 2,63978 | ,000 | -119,6422 | -104,9678 |
| Based on observed means.  The error term is Mean Square(Error) = 27,874. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

**Homogeneous Subsets**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NPP** | | | | | |
|  | Konsentrasi | N | Subset | | |
|  | 1 | 2 | 3 |
| Tukey HSDa,b | 35 | 8 | 105,9575 |  |  |
| 25 | 8 |  | 182,8125 |  |
| 30 | 8 |  |  | 218,2625 |
| Sig. |  | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 27,874. | | | | | |
| a. Uses Harmonic Mean Sample Size = 8,000. | | | | | |
| b. Alpha = ,05. | | | | | |

**Hari**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: NPP | | | | | | | |
|  | (I) Hari | (J) Hari | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 0 | 3 | -9,2473\* | 3,04815 | ,045 | -18,2970 | -,1977 |
| 6 | 27,7325\* | 3,04815 | ,000 | 18,6828 | 36,7822 |
| 9 | 105,9882\* | 3,04815 | ,000 | 96,9385 | 115,0378 |
| 3 | 0 | 9,2473\* | 3,04815 | ,045 | ,1977 | 18,2970 |
| 6 | 36,9798\* | 3,04815 | ,000 | 27,9302 | 46,0295 |
| 9 | 115,2355\* | 3,04815 | ,000 | 106,1858 | 124,2852 |
| 6 | 0 | -27,7325\* | 3,04815 | ,000 | -36,7822 | -18,6828 |
| 3 | -36,9798\* | 3,04815 | ,000 | -46,0295 | -27,9302 |
| 9 | 78,2557\* | 3,04815 | ,000 | 69,2060 | 87,3053 |
| 9 | 0 | -105,9882\* | 3,04815 | ,000 | -115,0378 | -96,9385 |
| 3 | -115,2355\* | 3,04815 | ,000 | -124,2852 | -106,1858 |
| 6 | -78,2557\* | 3,04815 | ,000 | -87,3053 | -69,2060 |
| Bonferroni | 0 | 3 | -9,2473 | 3,04815 | ,062 | -18,8572 | ,3625 |
| 6 | 27,7325\* | 3,04815 | ,000 | 18,1226 | 37,3424 |
| 9 | 105,9882\* | 3,04815 | ,000 | 96,3783 | 115,5980 |
| 3 | 0 | 9,2473 | 3,04815 | ,062 | -,3625 | 18,8572 |
| 6 | 36,9798\* | 3,04815 | ,000 | 27,3700 | 46,5897 |
| 9 | 115,2355\* | 3,04815 | ,000 | 105,6256 | 124,8454 |
| 6 | 0 | -27,7325\* | 3,04815 | ,000 | -37,3424 | -18,1226 |
| 3 | -36,9798\* | 3,04815 | ,000 | -46,5897 | -27,3700 |
| 9 | 78,2557\* | 3,04815 | ,000 | 68,6458 | 87,8655 |
| 9 | 0 | -105,9882\* | 3,04815 | ,000 | -115,5980 | -96,3783 |
| 3 | -115,2355\* | 3,04815 | ,000 | -124,8454 | -105,6256 |
| 6 | -78,2557\* | 3,04815 | ,000 | -87,8655 | -68,6458 |
| Based on observed means.  The error term is Mean Square(Error) = 27,874. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

**Homogeneous Subsets**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NPP** | | | | | | |
|  | Hari | N | Subset | | | |
|  | 1 | 2 | 3 | 4 |
| Tukey HSDa,b | 9 | 6 | 94,1410 |  |  |  |
| 6 | 6 |  | 172,3967 |  |  |
| 0 | 6 |  |  | 200,1292 |  |
| 3 | 6 |  |  |  | 209,3765 |
| Sig. |  | 1,000 | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 27,874. | | | | | | |
| a. Uses Harmonic Mean Sample Size = 6,000. | | | | | | |
| b. Alpha = ,05. | | | | | | |

**Hasil Uji Analisis Anova2 Arah Pengaruh Konsentrasi dan Waktu terhadap Respirasi**

|  |  |  |
| --- | --- | --- |
| **Between-Subjects Factors** | | |
|  | | N |
| Konsentrasi | 25 | 8 |
| 30 | 8 |
| 35 | 8 |
| Hari | 0 | 6 |
| 3 | 6 |
| 6 | 6 |
| 9 | 6 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | |
| Dependent Variable: Respirasi | | | | |
| Konsentrasi | Hari | Mean | Std. Deviation | N |
| 25 | 0 | 176,1720 | 1,65746 | 2 |
| 3 | 193,3595 | 2,76267 | 2 |
| 6 | 150,3905 | 13,81050 | 2 |
| 9 | 141,7970 | 9,39179 | 2 |
| Total | 165,4298 | 22,83362 | 8 |
| 30 | 0 | 79,6900 | ,00000 | 2 |
| 3 | 167,1850 | 4,41942 | 2 |
| 6 | 153,5150 | 2,76479 | 2 |
| 9 | 155,4700 | 8,83883 | 2 |
| Total | 138,9650 | 37,21237 | 8 |
| 35 | 0 | 197,6550 | 3,31633 | 2 |
| 3 | 173,4400 | 1,10309 | 2 |
| 6 | 3,1250 | 1,11016 | 2 |
| 9 | 5,0800 | ,55154 | 2 |
| Total | 94,8250 | 97,43021 | 8 |
| Total | 0 | 151,1723 | 56,22177 | 6 |
| 3 | 177,9948 | 12,45572 | 6 |
| 6 | 102,3435 | 77,12626 | 6 |
| 9 | 100,7823 | 74,60616 | 6 |
| Total | 133,0733 | 65,98687 | 24 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Levene's Test of Equality of Error Variancesa** | | | |
| Dependent Variable: Respirasi | | | |
| F | df1 | df2 | Sig. |
| . | 11 | 12 | . |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | |
| a. Design: Intercept + Salinitas + Waktu + Salinitas \* Waktu | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tests of Between-Subjects Effects** | | | | | |
| Dependent Variable: Respirasi | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Corrected Model | 99739,768a | 11 | 9067,252 | 266,444 | ,000 |
| Intercept | 425003,757 | 1 | 425003,757 | 12488,876 | ,000 |
| Salinitas | 20356,676 | 2 | 10178,338 | 299,094 | ,000 |
| Waktu | 25995,278 | 3 | 8665,093 | 254,627 | ,000 |
| Salinitas \* Waktu | 53387,815 | 6 | 8897,969 | 261,470 | ,000 |
| Error | 408,367 | 12 | 34,031 |  |  |
| Total | 525151,892 | 24 |  |  |  |
| Corrected Total | 100148,136 | 23 |  |  |  |
| a. R Squared = ,996 (Adjusted R Squared = ,992) | | | | | |

Estimated Marginal Means

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1. Konsentrasi** | | | | |
| Dependent Variable: Respirasi | | | | |
| Konsentrasi | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 165,430 | 2,062 | 160,936 | 169,924 |
| 30 | 138,965 | 2,062 | 134,471 | 143,459 |
| 35 | 94,825 | 2,062 | 90,331 | 99,319 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2. Hari** | | | | |
| Dependent Variable: Respirasi | | | | |
| Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 0 | 151,172 | 2,382 | 145,983 | 156,361 |
| 3 | 177,995 | 2,382 | 172,806 | 183,184 |
| 6 | 102,343 | 2,382 | 97,155 | 107,532 |
| 9 | 100,782 | 2,382 | 95,593 | 105,971 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **3. Konsentrasi \* Hari** | | | | | |
| Dependent Variable: Respirasi | | | | | |
| Konsentrasi | Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 0 | 176,172 | 4,125 | 167,184 | 185,160 |
| 3 | 193,359 | 4,125 | 184,372 | 202,347 |
| 6 | 150,390 | 4,125 | 141,403 | 159,378 |
| 9 | 141,797 | 4,125 | 132,809 | 150,785 |
| 30 | 0 | 79,690 | 4,125 | 70,702 | 88,678 |
| 3 | 167,185 | 4,125 | 158,197 | 176,173 |
| 6 | 153,515 | 4,125 | 144,527 | 162,503 |
| 9 | 155,470 | 4,125 | 146,482 | 164,458 |
| 35 | 0 | 197,655 | 4,125 | 188,667 | 206,643 |
| 3 | 173,440 | 4,125 | 164,452 | 182,428 |
| 6 | 3,125 | 4,125 | -5,863 | 12,113 |
| 9 | 5,080 | 4,125 | -3,908 | 14,068 |

Post Hoc Test  
Konsentrasi

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: Respirasi | | | | | | | |
|  | (I) Konsentrasi | (J) Konsentrasi | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 25 | 30 | 26,4648\* | 2,91679 | ,000 | 18,6832 | 34,2463 |
| 35 | 70,6048\* | 2,91679 | ,000 | 62,8232 | 78,3863 |
| 30 | 25 | -26,4648\* | 2,91679 | ,000 | -34,2463 | -18,6832 |
| 35 | 44,1400\* | 2,91679 | ,000 | 36,3584 | 51,9216 |
| 35 | 25 | -70,6048\* | 2,91679 | ,000 | -78,3863 | -62,8232 |
| 30 | -44,1400\* | 2,91679 | ,000 | -51,9216 | -36,3584 |
| Bonferroni | 25 | 30 | 26,4648\* | 2,91679 | ,000 | 18,3576 | 34,5719 |
| 35 | 70,6048\* | 2,91679 | ,000 | 62,4976 | 78,7119 |
| 30 | 25 | -26,4648\* | 2,91679 | ,000 | -34,5719 | -18,3576 |
| 35 | 44,1400\* | 2,91679 | ,000 | 36,0329 | 52,2471 |
| 35 | 25 | -70,6048\* | 2,91679 | ,000 | -78,7119 | -62,4976 |
| 30 | -44,1400\* | 2,91679 | ,000 | -52,2471 | -36,0329 |
| Based on observed means.  The error term is Mean Square(Error) = 34,031. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

Homogeneous Subsets

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Respirasi** | | | | | |
|  | Konsentrasi | N | Subset | | |
|  | 1 | 2 | 3 |
| Tukey HSDa,b | 35 | 8 | 94,8250 |  |  |
| 30 | 8 |  | 138,9650 |  |
| 25 | 8 |  |  | 165,4298 |
| Sig. |  | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 34,031. | | | | | |
| a. Uses Harmonic Mean Sample Size = 8,000. | | | | | |
| b. Alpha = ,05. | | | | | |

Hari

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: Respirasi | | | | | | | |
|  | (I) Hari | (J) Hari | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 0 | 3 | -26,8225\* | 3,36802 | ,000 | -36,8218 | -16,8232 |
| 6 | 48,8288\* | 3,36802 | ,000 | 38,8295 | 58,8281 |
| 9 | 50,3900\* | 3,36802 | ,000 | 40,3907 | 60,3893 |
| 3 | 0 | 26,8225\* | 3,36802 | ,000 | 16,8232 | 36,8218 |
| 6 | 75,6513\* | 3,36802 | ,000 | 65,6520 | 85,6506 |
| 9 | 77,2125\* | 3,36802 | ,000 | 67,2132 | 87,2118 |
| 6 | 0 | -48,8288\* | 3,36802 | ,000 | -58,8281 | -38,8295 |
| 3 | -75,6513\* | 3,36802 | ,000 | -85,6506 | -65,6520 |
| 9 | 1,5612 | 3,36802 | ,966 | -8,4381 | 11,5605 |
| 9 | 0 | -50,3900\* | 3,36802 | ,000 | -60,3893 | -40,3907 |
| 3 | -77,2125\* | 3,36802 | ,000 | -87,2118 | -67,2132 |
| 6 | -1,5612 | 3,36802 | ,966 | -11,5605 | 8,4381 |
| Bonferroni | 0 | 3 | -26,8225\* | 3,36802 | ,000 | -37,4408 | -16,2042 |
| 6 | 48,8288\* | 3,36802 | ,000 | 38,2106 | 59,4471 |
| 9 | 50,3900\* | 3,36802 | ,000 | 39,7717 | 61,0083 |
| 3 | 0 | 26,8225\* | 3,36802 | ,000 | 16,2042 | 37,4408 |
| 6 | 75,6513\* | 3,36802 | ,000 | 65,0331 | 86,2696 |
| 9 | 77,2125\* | 3,36802 | ,000 | 66,5942 | 87,8308 |
| 6 | 0 | -48,8288\* | 3,36802 | ,000 | -59,4471 | -38,2106 |
| 3 | -75,6513\* | 3,36802 | ,000 | -86,2696 | -65,0331 |
| 9 | 1,5612 | 3,36802 | 1,000 | -9,0571 | 12,1794 |
| 9 | 0 | -50,3900\* | 3,36802 | ,000 | -61,0083 | -39,7717 |
| 3 | -77,2125\* | 3,36802 | ,000 | -87,8308 | -66,5942 |
| 6 | -1,5612 | 3,36802 | 1,000 | -12,1794 | 9,0571 |
| Based on observed means.  The error term is Mean Square(Error) = 34,031. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

Homogeneous Subsets

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Respirasi** | | | | | |
|  | Hari | N | Subset | | |
|  | 1 | 2 | 3 |
| Tukey HSDa,b | 9 | 6 | 100,7823 |  |  |
| 6 | 6 | 102,3435 |  |  |
| 0 | 6 |  | 151,1723 |  |
| 3 | 6 |  |  | 177,9948 |
| Sig. |  | ,966 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 34,031. | | | | | |
| a. Uses Harmonic Mean Sample Size = 6,000. | | | | | |
| b. Alpha = ,05. | | | | | |

**Hasil Uji Analisis Anova 2 Arah Pengaruh Konsentrasi dan Waktu terhadap *Gross Primary Productivity* (GPP)**

|  |  |  |
| --- | --- | --- |
| **Between-Subjects Factors** | | |
|  | | N |
| Konsentrasi | 25 | 8 |
| 30 | 8 |
| 35 | 8 |
| Hari | 0 | 6 |
| 3 | 6 |
| 6 | 6 |
| 9 | 6 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | |
| Dependent Variable: GPP | | | | |
| Konsentrasi | Hari | Mean | Std. Deviation | N |
| 25 | 0 | 383,9845 | 2,76267 | 2 |
| 3 | 361,7190 | ,00000 | 2 |
| 6 | 375,3910 | 1,65746 | 2 |
| 9 | 271,8755 | 2,20971 | 2 |
| Total | 348,2425 | 47,91569 | 8 |
| 30 | 0 | 286,3280 | 2,76196 | 2 |
| 3 | 410,9375 | 11,04854 | 2 |
| 6 | 437,8910 | 1,65746 | 2 |
| 9 | 293,7500 | 14,36275 | 2 |
| Total | 357,2266 | 72,93219 | 8 |
| 35 | 0 | 383,5900 | ,00000 | 2 |
| 3 | 389,4550 | 1,66170 | 2 |
| 6 | 10,9400 | 6,63266 | 2 |
| 9 | 19,1400 | ,55154 | 2 |
| Total | 200,7813 | 198,61923 | 8 |
| Total | 0 | 351,3008 | 50,35836 | 6 |
| 3 | 387,3705 | 22,62887 | 6 |
| 6 | 274,7407 | 206,26590 | 6 |
| 9 | 194,9218 | 136,66582 | 6 |
| Total | 302,0835 | 140,32893 | 24 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Levene's Test of Equality of Error Variancesa** | | | |
| Dependent Variable: GPP | | | |
| F | df1 | df2 | Sig. |
| . | 11 | 12 | . |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | |
| a. Design: Intercept + Salinitas + Waktu + Salinitas \* Waktu | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tests of Between-Subjects Effects** | | | | | |
| Dependent Variable: GPP | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Corrected Model | 452519,766a | 11 | 41138,161 | 1230,900 | ,000 |
| Intercept | 2190105,979 | 1 | 2190105,979 | 65530,421 | ,000 |
| Salinitas | 123468,507 | 2 | 61734,253 | 1847,158 | ,000 |
| Waktu | 131564,830 | 3 | 43854,943 | 1312,189 | ,000 |
| Salinitas \* Waktu | 197486,430 | 6 | 32914,405 | 984,836 | ,000 |
| Error | 401,055 | 12 | 33,421 |  |  |
| Total | 2643026,800 | 24 |  |  |  |
| Corrected Total | 452920,821 | 23 |  |  |  |
| a. R Squared = ,999 (Adjusted R Squared = ,998) | | | | | |

Estimated Marginal Means

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1. Konsentrasi** | | | | |
| Dependent Variable: GPP | | | | |
| Konsentrasi | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 348,243 | 2,044 | 343,789 | 352,696 |
| 30 | 357,227 | 2,044 | 352,773 | 361,680 |
| 35 | 200,781 | 2,044 | 196,328 | 205,235 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2. Hari** | | | | |
| Dependent Variable: GPP | | | | |
| Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 0 | 351,301 | 2,360 | 346,159 | 356,443 |
| 3 | 387,371 | 2,360 | 382,228 | 392,513 |
| 6 | 274,741 | 2,360 | 269,598 | 279,883 |
| 9 | 194,922 | 2,360 | 189,780 | 200,064 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **3. Konsentrasi \* Hari** | | | | | |
| Dependent Variable: GPP | | | | | |
| Konsentrasi | Hari | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| 25 | 0 | 383,984 | 4,088 | 375,078 | 392,891 |
| 3 | 361,719 | 4,088 | 352,812 | 370,626 |
| 6 | 375,391 | 4,088 | 366,484 | 384,298 |
| 9 | 271,876 | 4,088 | 262,969 | 280,782 |
| 30 | 0 | 286,328 | 4,088 | 277,421 | 295,235 |
| 3 | 410,938 | 4,088 | 402,031 | 419,844 |
| 6 | 437,891 | 4,088 | 428,984 | 446,798 |
| 9 | 293,750 | 4,088 | 284,843 | 302,657 |
| 35 | 0 | 383,590 | 4,088 | 374,683 | 392,497 |
| 3 | 389,455 | 4,088 | 380,548 | 398,362 |
| 6 | 10,940 | 4,088 | 2,033 | 19,847 |
| 9 | 19,140 | 4,088 | 10,233 | 28,047 |

Post Hoc Test

Konsentrasi

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: GPP | | | | | | | |
|  | (I) Konsentrasi | (J) Konsentrasi | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 25 | 30 | -8,9841\* | 2,89055 | ,023 | -16,6957 | -1,2725 |
| 35 | 147,4613\* | 2,89055 | ,000 | 139,7496 | 155,1729 |
| 30 | 25 | 8,9841\* | 2,89055 | ,023 | 1,2725 | 16,6957 |
| 35 | 156,4454\* | 2,89055 | ,000 | 148,7338 | 164,1570 |
| 35 | 25 | -147,4613\* | 2,89055 | ,000 | -155,1729 | -139,7496 |
| 30 | -156,4454\* | 2,89055 | ,000 | -164,1570 | -148,7338 |
| Bonferroni | 25 | 30 | -8,9841\* | 2,89055 | ,027 | -17,0183 | -,9499 |
| 35 | 147,4613\* | 2,89055 | ,000 | 139,4270 | 155,4955 |
| 30 | 25 | 8,9841\* | 2,89055 | ,027 | ,9499 | 17,0183 |
| 35 | 156,4454\* | 2,89055 | ,000 | 148,4112 | 164,4796 |
| 35 | 25 | -147,4613\* | 2,89055 | ,000 | -155,4955 | -139,4270 |
| 30 | -156,4454\* | 2,89055 | ,000 | -164,4796 | -148,4112 |
| Based on observed means.  The error term is Mean Square(Error) = 33,421. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

Homogeneous Subsets

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **GPP** | | | | | |
|  | Konsentrasi | N | Subset | | |
|  | 1 | 2 | 3 |
| Tukey HSDa,b | 35 | 8 | 200,7813 |  |  |
| 25 | 8 |  | 348,2425 |  |
| 30 | 8 |  |  | 357,2266 |
| Sig. |  | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 33,421. | | | | | |
| a. Uses Harmonic Mean Sample Size = 8,000. | | | | | |
| b. Alpha = ,05. | | | | | |

Hari

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | | |
| Dependent Variable: GPP | | | | | | | |
|  | (I) Hari | (J) Hari | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|  | Lower Bound | Upper Bound |
| Tukey HSD | 0 | 3 | -36,0697\* | 3,33772 | ,000 | -45,9790 | -26,1603 |
| 6 | 76,5602\* | 3,33772 | ,000 | 66,6508 | 86,4695 |
| 9 | 156,3790\* | 3,33772 | ,000 | 146,4696 | 166,2884 |
| 3 | 0 | 36,0697\* | 3,33772 | ,000 | 26,1603 | 45,9790 |
| 6 | 112,6298\* | 3,33772 | ,000 | 102,7205 | 122,5392 |
| 9 | 192,4487\* | 3,33772 | ,000 | 182,5393 | 202,3580 |
| 6 | 0 | -76,5602\* | 3,33772 | ,000 | -86,4695 | -66,6508 |
| 3 | -112,6298\* | 3,33772 | ,000 | -122,5392 | -102,7205 |
| 9 | 79,8188\* | 3,33772 | ,000 | 69,9095 | 89,7282 |
| 9 | 0 | -156,3790\* | 3,33772 | ,000 | -166,2884 | -146,4696 |
| 3 | -192,4487\* | 3,33772 | ,000 | -202,3580 | -182,5393 |
| 6 | -79,8188\* | 3,33772 | ,000 | -89,7282 | -69,9095 |
| Bonferroni | 0 | 3 | -36,0697\* | 3,33772 | ,000 | -46,5924 | -25,5469 |
| 6 | 76,5602\* | 3,33772 | ,000 | 66,0374 | 87,0829 |
| 9 | 156,3790\* | 3,33772 | ,000 | 145,8562 | 166,9018 |
| 3 | 0 | 36,0697\* | 3,33772 | ,000 | 25,5469 | 46,5924 |
| 6 | 112,6298\* | 3,33772 | ,000 | 102,1071 | 123,1526 |
| 9 | 192,4487\* | 3,33772 | ,000 | 181,9259 | 202,9714 |
| 6 | 0 | -76,5602\* | 3,33772 | ,000 | -87,0829 | -66,0374 |
| 3 | -112,6298\* | 3,33772 | ,000 | -123,1526 | -102,1071 |
| 9 | 79,8188\* | 3,33772 | ,000 | 69,2961 | 90,3416 |
| 9 | 0 | -156,3790\* | 3,33772 | ,000 | -166,9018 | -145,8562 |
| 3 | -192,4487\* | 3,33772 | ,000 | -202,9714 | -181,9259 |
| 6 | -79,8188\* | 3,33772 | ,000 | -90,3416 | -69,2961 |
| Based on observed means.  The error term is Mean Square(Error) = 33,421. | | | | | | | |
| \*. The mean difference is significant at the ,05 level. | | | | | | | |

Homogeneous Subsets

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **GPP** | | | | | | |
|  | Hari | N | Subset | | | |
|  | 1 | 2 | 3 | 4 |
| Tukey HSDa,b | 9 | 6 | 194,9218 |  |  |  |
| 6 | 6 |  | 274,7407 |  |  |
| 0 | 6 |  |  | 351,3008 |  |
| 3 | 6 |  |  |  | 387,3705 |
| Sig. |  | 1,000 | 1,000 | 1,000 | 1,000 |
| Means for groups in homogeneous subsets are displayed.  Based on observed means.  The error term is Mean Square(Error) = 33,421. | | | | | | |
| a. Uses Harmonic Mean Sample Size = 6,000. | | | | | | |
| b. Alpha = ,05. | | | | | | |