

Data Nugget: Do insects prefer local or foreign foods?

2012 Data Worksheet

| Species # | <i>native</i> ₁ species prop leaf herbivory damage | <i>exotic</i> ₂ species prop leaf herbivory damage | <i>invasive</i> ₃ species prop leaf herbivory damage | Native Squared Difference (<i>native</i> _{<i>i</i>} - \bar{x}_1) ² | Exotic Squared Difference (<i>exotic</i> _{<i>i</i>} - \bar{x}_2) ² | Invasive Squared Difference (<i>invasive</i> _{<i>i</i>} - \bar{x}_3) ² |
|---|--|--|--|---|---|---|
| 1 | 0.042 | 0.000 | 0.000 | | | |
| 2 | 0.016 | 0.000 | 0.000 | | | |
| 3 | 0.074 | 0.010 | 0.170 | | | |
| 4 | 0.067 | 0.028 | 0.183 | | | |
| 5 | 0.003 | 0.002 | 0.029 | | | |
| 6 | 0.032 | 0.027 | 0.050 | | | |
| 7 | 0.071 | 0.025 | 0.216 | | | |
| 8 | 0.012 | 0.000 | 0.091 | | | |
| 9 | 0.149 | 0.016 | 0.065 | | | |
| 10 | 0.008 | 0.293 | 0.088 | | | |
| 11 | 0.000 | 0.016 | | | | |
| 12 | 0.167 | 0.006 | | | | |
| 13 | 0.000 | 0.000 | | | | |
| 14 | 0.004 | 0.100 | | | | |
| 15 | 0.012 | 0.241 | | | | |
| 16 | 0.006 | 0.242 | | | | |
| 17 | 0.000 | | | | | |
| 18 | 0.000 | | | | | |
| 19 | 0.046 | | | | | |
| 20 | | | | | | |
| 21 | | | | | | |
| 22 | | | | | | |
| 23 | | | | | | |
| 24 | | | | | | |
| Sample Size (<i>n</i>) | 19 | 16 | 10 | | | |
| Mean (\bar{x}) | $\bar{x}_1 =$ | $\bar{x}_2 =$ | $\bar{x}_3 =$ | | | |
| Sum of Squares (SS) = $\sum (x_i - \bar{x}_1)^2$ | | | | SS1 = | SS2 = | SS3 = |
| Variance (s^2) = $\frac{\sum(x_i - \bar{x})^2}{(n - 1)}$ | | | | $s_1^2 =$ | $s_2^2 =$ | $s_3^2 =$ |
| Standard deviation $s = \sqrt{\frac{\sum(x_i - \bar{x})^2}{(n - 1)}}$ | | | | $s_1 =$ | $s_2 =$ | $s_3 =$ |
| Standard error of the mean $SE_{\bar{x}} = \frac{s}{\sqrt{n}}$ | | | | $SE_{\bar{x}} =$ | $SE_{\bar{x}} =$ | $SE_{\bar{x}} =$ |
| 95% CI = $\frac{2s}{\sqrt{n}}$ | | | | 95% CI = | 95% CI = | 95% CI = |