$z_o = \frac{\hat{C}}{SD(\hat{C})}$ $\quad t_o = \frac{\hat{C}}{SE(\hat{C})}$ $\quad F_o = \frac{\hat{C}^2}{SE(\hat{C})^2}$ $\quad Var(\hat{C}) = \sigma^2 \sum_{i=1}^t c_i^2/r_i$

$\omega^2_{Y|\hat{C}} = \frac{SS_{\hat{C}} - MSE}{SS(Total)+MSE}$ $\quad SS(\hat{C}) = \frac{\hat{C}^2}{\sum_{i=1}^t c_i^2/r_i}$

$F_{max} = \frac{\max(s_i^2)}{\min(s_i^2)}$ $\quad \Phi = \sqrt{\frac{r\sum_{i=1}^t \alpha_i^2}{t\sigma^2}}$

Orthogonal Polynomials:

$Y_{ij} = \mu + \beta_1^*\ P_{1i} + ... + \beta_k^*\ P_{ki} + \epsilon_{ij}$, $\quad \beta_k^* = \frac{\sum P_{ci}\overline{Y}_{i.}}{\sum P_{ci}^2}$, $\quad P_c = (P_{c1}, ..., P_{ck})$ in Table XI.

Multiple Comparisons and SCIs: $\quad \hat{C} \pm MSD$

Method	MSD
Bonferroni	$t_{\frac{\alpha}{2k},\nu}\sqrt{s^2 \sum_{i=1}^t c_i^2/r_i}$
Scheffe	$\sqrt{(t-1)F_{\alpha,\nu_1,\nu_2}}\sqrt{s^2 \sum_{i=1}^t c_i^2/r_i}$
Dunnett	$d_{\alpha,k,\nu}\sqrt{2s^2/r}$
Tukey	$q_{\alpha,k,\nu}\sqrt{s^2/r}$
LSD	$t_{\alpha/2,\nu}\sqrt{s^2(1/r_i + 1/r_j)}$

Random effects and Sub-samples:

$$\rho_I = \frac{\sigma_a^2}{\sigma_a^2 + \sigma_e^2}$$

$n = \sqrt{\frac{c_1\sigma_d^2}{c_2\sigma_e^2}}$ where σ_d^2 represents the sub-samples variance component, $Cost = c_1 r + c_2 r n$, n is the number of sub-samples, and r is the number of experimental units.

Factorial Treatment Designs:

$\Phi = \sqrt{\frac{r\sum_{i=1}^a \sum_{j=1}^b \tau_{ij}^2}{ab\sigma^2}}$, $\quad$ Or

$\lambda_a = \sqrt{\frac{br\sum_{i=1}^a \alpha_i^2}{\sigma^2}}$

$\lambda_b = \sqrt{\frac{ar\sum_{i=1}^b \beta^2}{\sigma^2}}$

$\lambda_{ab} = \sqrt{\frac{r\sum_{i=1}^a \sum_{j=1}^b (\alpha\beta)_{ij}^2}{\sigma^2}}$, and $\Phi = \sqrt{\lambda/(\nu_1+1)}$