%INCLUDE 'C:\Yangxi\Data\5. SAS\Non-parametric\Split-plot\F1\_LD\_F1.SAS';

%INCLUDE 'C:\Yangxi\Data\5. SAS\Non-parametric\One-way layout\LD\_CI.SAS';

options ls =100 ps= 1000 nodate nocenter nonumber;

data yangxi;

input plot CV$ Timing$ sub rep val;

cards;

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 1 | 1 | 11 | 1 | 5.9 |
| 2 | 1 | 1 | 12 | 2 | 6.1 |
| 3 | 1 | 1 | 13 | 3 | 5.3 |
| 4 | 2 | 1 | 21 | 1 | 0.7 |
| 5 | 2 | 1 | 22 | 2 | 1.4 |
| 6 | 2 | 1 | 23 | 3 | 0.7 |
| 7 | 3 | 1 | 31 | 1 | 0.7 |
| 8 | 3 | 1 | 32 | 2 | 0 |
| 9 | 3 | 1 | 33 | 3 | 0 |
| 10 | 4 | 1 | 41 | 1 | 0.7 |
| 11 | 4 | 1 | 42 | 2 | 0.7 |
| 12 | 4 | 1 | 43 | 3 | 0 |
| 13 | 5 | 1 | 51 | 1 | 0.7 |
| 14 | 5 | 1 | 52 | 2 | 0.7 |
| 15 | 5 | 1 | 53 | 3 | 0.7 |
| 16 | 6 | 1 | 61 | 1 | 0.7 |
| 17 | 6 | 1 | 62 | 2 | 0.7 |
| 18 | 6 | 1 | 63 | 3 | 0.21 |
| 19 | 7 | 1 | 71 | 1 | 0 |
| 20 | 7 | 1 | 72 | 2 | 0.7 |
| 21 | 7 | 1 | 73 | 3 | 0.7 |
| 22 | 1 | 2 | 11 | 1 | 5.1 |
| 23 | 1 | 2 | 12 | 2 | 4 |
| 24 | 1 | 2 | 13 | 3 | 5 |
| 25 | 2 | 2 | 21 | 1 | 0 |
| 26 | 2 | 2 | 22 | 2 | 0 |
| 27 | 2 | 2 | 23 | 3 | 0 |
| 28 | 3 | 2 | 31 | 1 | 0 |
| 29 | 3 | 2 | 32 | 2 | 0 |
| 30 | 3 | 2 | 33 | 3 | 0 |
| 31 | 4 | 2 | 41 | 1 | 0 |
| 32 | 4 | 2 | 42 | 2 | 0 |
| 33 | 4 | 2 | 43 | 3 | 0 |
| 34 | 5 | 2 | 51 | 1 | 0 |
| 35 | 5 | 2 | 52 | 2 | 0 |
| 36 | 5 | 2 | 53 | 3 | 0 |
| 37 | 6 | 2 | 61 | 1 | 0 |
| 38 | 6 | 2 | 62 | 2 | 0 |
| 39 | 6 | 2 | 63 | 3 | 0 |
| 40 | 7 | 2 | 71 | 1 | 0 |
| 41 | 7 | 2 | 72 | 2 | 0 |
| 42 | 7 | 2 | 73 | 3 | 0 |
| 43 | 1 | 3 | 11 | 1 | 7 |
| 44 | 1 | 3 | 12 | 2 | 7 |
| 45 | 1 | 3 | 13 | 3 | 2.6 |
| 46 | 2 | 3 | 21 | 1 | 0 |
| 47 | 2 | 3 | 22 | 2 | 0 |
| 48 | 2 | 3 | 23 | 3 | 0 |
| 49 | 3 | 3 | 31 | 1 | 0 |
| 50 | 3 | 3 | 32 | 2 | 0 |
| 51 | 3 | 3 | 33 | 3 | 0 |
| 52 | 4 | 3 | 41 | 1 | 0 |
| 53 | 4 | 3 | 42 | 2 | 0 |
| 54 | 4 | 3 | 43 | 3 | 0 |
| 55 | 5 | 3 | 51 | 1 | 0 |
| 56 | 5 | 3 | 52 | 2 | 0 |
| 57 | 5 | 3 | 53 | 3 | 0 |
| 58 | 6 | 3 | 61 | 1 | 0 |
| 59 | 6 | 3 | 62 | 2 | 0 |
| 60 | 6 | 3 | 63 | 3 | 0 |
| 61 | 7 | 3 | 71 | 1 | 0 |
| 62 | 7 | 3 | 72 | 2 | 0 |
| 63 | 7 | 3 | 73 | 3 | 0 |
| 64 | 1 | 4 | 11 | 1 | 1.6 |
| 65 | 1 | 4 | 12 | 2 | 2 |
| 66 | 1 | 4 | 13 | 3 | 4.8 |
| 67 | 2 | 4 | 21 | 1 | 0 |
| 68 | 2 | 4 | 22 | 2 | 0 |
| 69 | 2 | 4 | 23 | 3 | 0 |
| 70 | 3 | 4 | 31 | 1 | 0 |
| 71 | 3 | 4 | 32 | 2 | 0 |
| 72 | 3 | 4 | 33 | 3 | 0 |
| 73 | 4 | 4 | 41 | 1 | 0 |
| 74 | 4 | 4 | 42 | 2 | 0 |
| 75 | 4 | 4 | 43 | 3 | 0 |
| 76 | 5 | 4 | 51 | 1 | 0 |
| 77 | 5 | 4 | 52 | 2 | 0 |
| 78 | 5 | 4 | 53 | 3 | 0 |
| 79 | 6 | 4 | 61 | 1 | 0 |
| 80 | 6 | 4 | 62 | 2 | 0 |
| 81 | 6 | 4 | 63 | 3 | 0 |
| 82 | 7 | 4 | 71 | 1 | 0 |
| 83 | 7 | 4 | 72 | 2 | 0 |
| 84 | 7 | 4 | 73 | 3 | 0 |
| 85 | 1 | 5 | 11 | 1 | 1.2 |
| 86 | 1 | 5 | 12 | 2 | 1.2 |
| 87 | 1 | 5 | 13 | 3 | 4.6 |
| 88 | 2 | 5 | 21 | 1 | 0.3 |
| 89 | 2 | 5 | 22 | 2 | 0 |
| 90 | 2 | 5 | 23 | 3 | 0 |
| 91 | 3 | 5 | 31 | 1 | 0.4 |
| 92 | 3 | 5 | 32 | 2 | 0.3 |
| 93 | 3 | 5 | 33 | 3 | 0 |
| 94 | 4 | 5 | 41 | 1 | 0.3 |
| 95 | 4 | 5 | 42 | 2 | 0.6 |
| 96 | 4 | 5 | 43 | 3 | 0 |
| 97 | 5 | 5 | 51 | 1 | 0.1 |
| 98 | 5 | 5 | 52 | 2 | 0.4 |
| 99 | 5 | 5 | 53 | 3 | 0 |
| 100 | 6 | 5 | 61 | 1 | 0 |
| 101 | 6 | 5 | 62 | 2 | 0 |
| 102 | 6 | 5 | 63 | 3 | 0 |
| 103 | 7 | 5 | 71 | 1 | 0 |
| 104 | 7 | 5 | 72 | 2 | 0 |
| 105 | 7 | 5 | 73 | 3 | 0 |
| 106 | 1 | 6 | 11 | 1 | 0.4 |
| 107 | 1 | 6 | 12 | 2 | 0.7 |
| 108 | 1 | 6 | 13 | 3 | 0.8 |
| 109 | 2 | 6 | 21 | 1 | 0.5 |
| 110 | 2 | 6 | 22 | 2 | 0.3 |
| 111 | 2 | 6 | 23 | 3 | 0.3 |
| 112 | 3 | 6 | 31 | 1 | 0.1 |
| 113 | 3 | 6 | 32 | 2 | 0.5 |
| 114 | 3 | 6 | 33 | 3 | 0 |
| 115 | 4 | 6 | 41 | 1 | 0.3 |
| 116 | 4 | 6 | 42 | 2 | 0.3 |
| 117 | 4 | 6 | 43 | 3 | 0 |
| 118 | 5 | 6 | 51 | 1 | 1 |
| 119 | 5 | 6 | 52 | 2 | 0.4 |
| 120 | 5 | 6 | 53 | 3 | 0.2 |
| 121 | 6 | 6 | 61 | 1 | 0 |
| 122 | 6 | 6 | 62 | 2 | 0 |
| 123 | 6 | 6 | 63 | 3 | 0 |
| 124 | 7 | 6 | 71 | 1 | 0 |
| 125 | 7 | 6 | 72 | 2 | 0 |
| 126 | 7 | 6 | 73 | 3 | 0 |
| 127 | 1 | 7 | 11 | 1 | 0.6 |
| 128 | 1 | 7 | 12 | 2 | 0.3 |
| 129 | 1 | 7 | 13 | 3 | 0.4 |
| 130 | 2 | 7 | 21 | 1 | 0.6 |
| 131 | 2 | 7 | 22 | 2 | 0.4 |
| 132 | 2 | 7 | 23 | 3 | 0.5 |
| 133 | 3 | 7 | 31 | 1 | 0.6 |
| 134 | 3 | 7 | 32 | 2 | 0.3 |
| 135 | 3 | 7 | 33 | 3 | 0.3 |
| 136 | 4 | 7 | 41 | 1 | 0.8 |
| 137 | 4 | 7 | 42 | 2 | 0.8 |
| 138 | 4 | 7 | 43 | 3 | 0.11 |
| 139 | 5 | 7 | 51 | 1 | 0.02 |
| 140 | 5 | 7 | 52 | 2 | 0.2 |
| 141 | 5 | 7 | 53 | 3 | 0 |
| 142 | 6 | 7 | 61 | 1 | 0 |
| 143 | 6 | 7 | 62 | 2 | 0 |
| 144 | 6 | 7 | 63 | 3 | 0 |
| 145 | 7 | 7 | 71 | 1 | 0 |
| 146 | 7 | 7 | 72 | 2 | 0 |
| 147 | 7 | 7 | 73 | 3 | 0 |

;

run;

proc rank data=yangxi out=yangxi;

var val;

ranks r;

run;

proc sort data=Yangxi out=Yangxi;

by CV Timing;

run;

proc mixed data=yangxi anovaf method=mivque0;

class CV Timing;

model r = CV |Timing / chisq;

repeated / type=un(1) group= CV\*Timing;

lsmeans CV | Timing;

run;

title1'Effect of irrigation and variety on beet root decay';

title2'Analysis using the F1\_LD\_F1 macro';

%F1\_LD\_F1(data=yangxi, factor=CV, var=val, time=Timing, subject=sub);

run;

ods rtf file='your file name here .rtf';

title2'Confidence intervals using the LD\_CI macro';

%LD\_CI(data=yangxi, var=val, group=CV, time=Timing, subject=sub);

run;

ods rtf close;

quit;