

Strata	1	2	3	4	5	6	7	8	9	10	Strata Total T_{0j}
A	0	1	1	2	5	4	7	7	8	6	41
B	6	8	9	10	13	12	15	16	16	17	122
C	18	19	20	20	24	23	25	28	29	27	233
D	26	30	31	31	33	32	35	37	38	38	331
Sample Total ($n\bar{y}_{i0}$)	50	58	61	63	75	71	82	88	91	88	$\Sigma T_{ij} = 727$

Source Of Variation	d.f.	S.S.	M.S.S.
Between Strata	$4 - 1 = 3$	4828.275	$\frac{485.5}{36} = 13.786$
Within Strata	$40 - 1 = 36$	485.5	
Total	39	5313.775	$\frac{5313.775}{39} = 136.251$

Sample Units

320	455	334	325	328
340	417	331	358	383
398	420	340	430	383
360	358	370	358	375
350	400	375	378	308
372	355	320	395	400

	1 st Class	
	y_i	y_i^2
320	-40	1600
340	-20	400
398	38	1444
360	0	0
350	-10	100
372	12	144
Total	-20	3688

	2 nd Class	
	y_i	y_i^2
455	95	9025
417	57	3249
420	60	3600
358	-2	4
400	40	1600
355	-5	25
Total	245	17503

	3 rd Class	
	y_i	y_i^2
334	-26	676
331	-29	841
340	-20	400
370	10	100
375	15	225
320	-40	1600
Total	-90	3842

	4 th Class	
	y_i	y_i^2
325	-35	1225
358	-2	4
430	70	4900
358	-2	4
378	18	324
395	35	1225
Total	84	7682

	5 th Class	
	y_i	y_i^2
328	-32	1024
383	23	529
383	23	529
375	15	225
308	-52	2704
400	40	1600
Total	17	6611

BLOCKS							
		I	II	III	IV	Total (T _{io})	Square Of Total
A	y	8	8	6	8	30	900
	y²	64	64	36	64	228	
B	y	10	8	9	10	37	1369
	y²	100	64	81	100	345	
C	y	12	10	10	9	41	1681
	y²	144	100	100	81	425	
		Total (T _{oj})	30	26	25	27	
		Square Of Total	900	676	625	729	

Treatments Combinations	Blocks						Treatments Totals(T _i)	T _i ²
	I	II	III	IV	V	VI		
1	-3	0	-9	-12	-47	-39	-110	12100
n	4	4	7	11	18	38	82	6724
s	-14	-3	-6	-8	-23	-3	-57	3249
ns	5	4	6	5	-25	5	0	0
Block Totals(B _i)	-8	5	-2	-4	-77	1	G = -85	
B _i ²	64	25	4	16	5929	1		

Yate's Method For 2 ² Experiment				
Treatment Combination (1)	Total Yield Form All Blocks (2)	(3).	Factorial Effects Totals (4)	SS (5) = (4) ² /4r
1	-110	-28	-85	301.041667
n	82	-57	249	2583.375
s	-57	192	-29	35.041667
ns	0	57	-135	759.375

ANOVA Table For 2 ² Experiment						
Source Of Variation	df	SS	MSS	Variance Ratio(F)	Tabulated 5%	Tabulated 1%
Blocks	5	1208.708	241.7416	1.37277	2.9	4.556
Treatments	3	3377.792	1125.93067	6.3938	3.2874	5.417
N	1	2583.375	2583.375	14.67	4.5431	8.683
S	1	35.0416667	35.0416667	0.19899	4.5431	8.683
NS	1	759.375	759.375	4.31225	4.5431	8.683
Error	15	2641.458	176.0972			
Totals	23	7227.9583				

Blocks	i	ii	iii	iv
Treatments				
1	47.2	51.2	51.1	43.2
a	44.7	60.3	70.2	61.2
b	45.3	55.8	57.3	52.1
ab	62.7	50.2	55.3	69.3
c	63.4	56.6	63.2	42.3
ac	45.3	52.3	59.8	38.2
bc	57.6	47.7	55.2	48.3
abc	49.3	59.8	56.8	52.5

Taking Deviation y = 49.3						
Treatments	i	ii	iii	iv	Treatments(T)	T ²
1	2.1	-1.9	-1.8	6.1	4.5	20.25
a	4.6	-11	-20.9	-11.9	-39.2	1536.64
b	4	-6.5	-8	-2.8	-13.3	176.89
ab	-13.4	-0.9	-6	-20	-40.3	1624.09
c	-14.1	-7.3	-13.9	7	-28.3	800.89
ac	4	-3	-10.5	11.1	1.6	2.56
bc	-8.3	1.6	-5.9	1	-11.6	134.56
abc	0	-10.5	-7.5	-3.2	-21.2	449.44
Blocks(B)	-21.1	-39.5	-74.5	-12.7	-147.8	4745.32
B²	445.21	1560.25	5550.25	161.29		

y	y ²				
2.1	4.41				
4.6	21.16				
4	16				
-13.4	179.56				
-14.1	198.81				
4	16				
-8.3	68.89				
0	0				
-1.9	3.61				
-11	121				
-6.5	42.25				
-0.9	0.81				
-7.3	53.29				
-3	9				
1.6	2.56				
-10.5	110.25				
Total	847.6				
2552.28					
y	y ²				
-1.8	3.24				
-20.9	436.81				
-8	64				
-6	36				
-13.9	193.21				
-10.5	110.25				
-5.9	34.81				
-7.5	56.25				
6.1	37.21				
-11.9	141.61				
-2.8	7.84				
-20	400				
7	49				
11.1	123.21				
1	1				
-3.2	10.24				
Total	1704.68				
				Grand Total	-147
				Raw SS	2552.28
				CF	682.65125
				Total SS	1869.62875
				SSB	281.97375
				SST	503.67875
				SSE	1083.97635

Yates Method For 2 ³ Experiment					
Treatment	Total Yield	1	2	3	SS = [3] ² /32
Combination					
1	4.5	-34.7	-88.3	-147.8	682.65125
a	-39.2	-53.6	-59.5	-50.4	79.38
b	-13.3	-26.7	-70.7	-25	19.53125
ab	-40.3	-32.8	20.3	-22.8	16.245
c	-28.3	-43.7	-18.9	28.8	25.92
ac	1.6	-27	-6.1	91	258.78125
bc	-11.6	29.9	16.7	12.8	5.12
abc	-21.2	-9.6	-39.5	-56.2	98.70125

Source Of Variation	SS	df	MSS	F	Tabulated F
					5%
Blocks	281.97375	3	93.99125	1.820903595	3.07
Treatments	503.67875	7	71.95410714	1.393975422	2.49
a	79.38	1	79.38	1.537838121	4.33
b	19.53125	1	19.53125	0.378381215	4.33
ab	16.245	1	16.245	0.314716305	4.33
c	25.92	1	25.92	0.502151223	4.33
ac	258.78125	1	258.78125	5.01339974	4.33
bc	5.12	1	5.12	0.099190365	4.33
abc	98.70125	1	98.70125	1.912150981	4.33
Error	1083.97625	21	51.61791667		
Total	1869.62875	31			