

Saluggia Beans

C

GR:JES

24th August, 1964.

Mr. Norman Stenhouse,
Division of Mathematical Statistics,
University of Adelaide,
ADELAIDE S.A.

Dear Norman,

Thank you for the prompt service on my calculations which arrived this morning. I plotted the equations for System 1 and found them to go closely through the centre of the data points. The high significance is most gratifying.

The equations for System 2 are very rough approximations with consequent low significance. It appears there has been some error. I picked out by eye some other quite different coefficients. They greatly improve the fit. These I have placed on your calculation sheets which are enclosed herewith. My tabulations for System 2 are also enclosed.

Please look into the subject and let me know the revised values.

Best regards,

Yours sincerely,

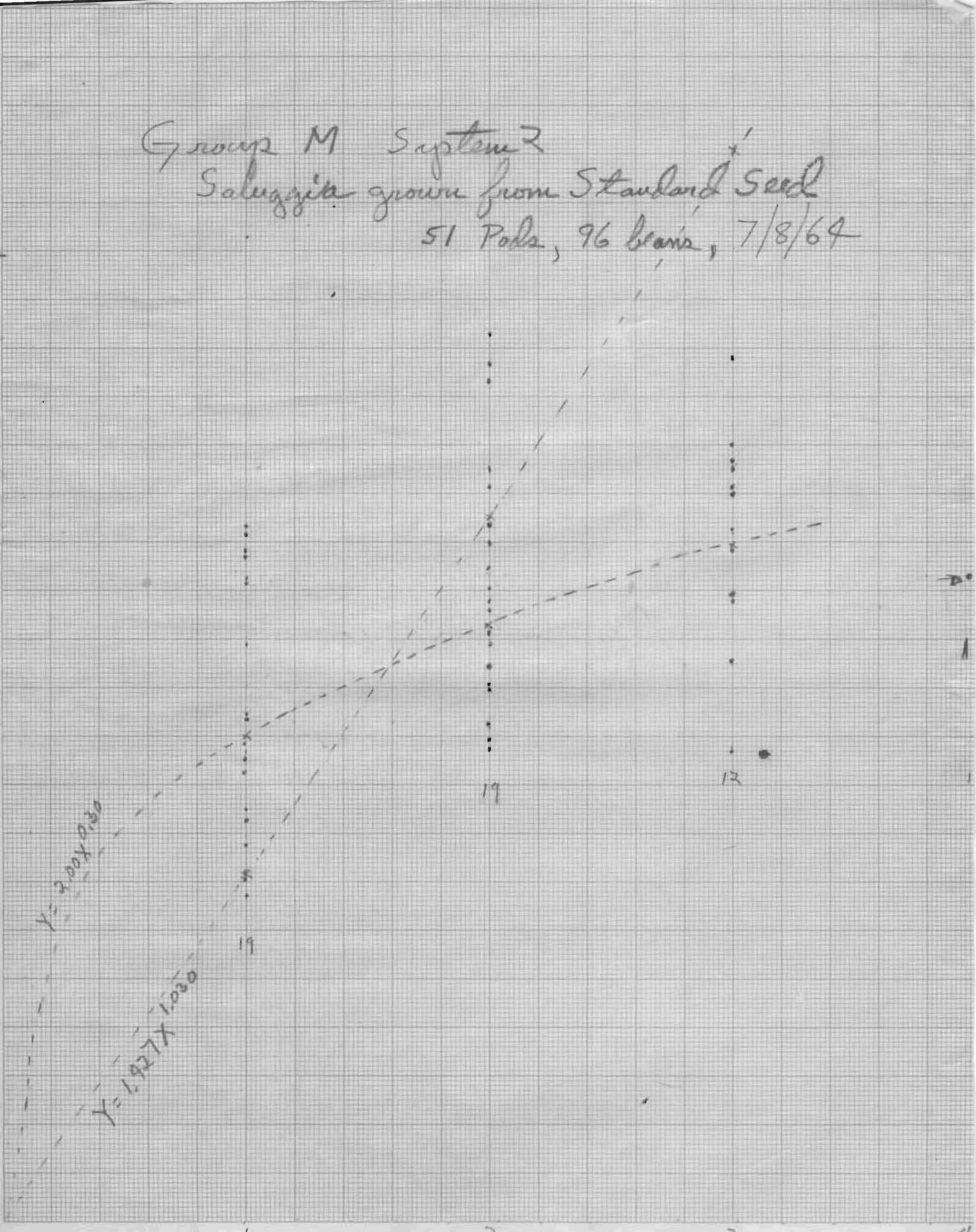
Greta Baber.

Group M System 2
 Saluggia grown from Standard Seed
 51 Pods, 96 beans, 7/8/64

(Grams Beans) / (Grams Shuck)

4

0



$$Y = 2.00X + 0.30$$

$$Y = 1.927X + 1.030$$

19

13

Beans per pod

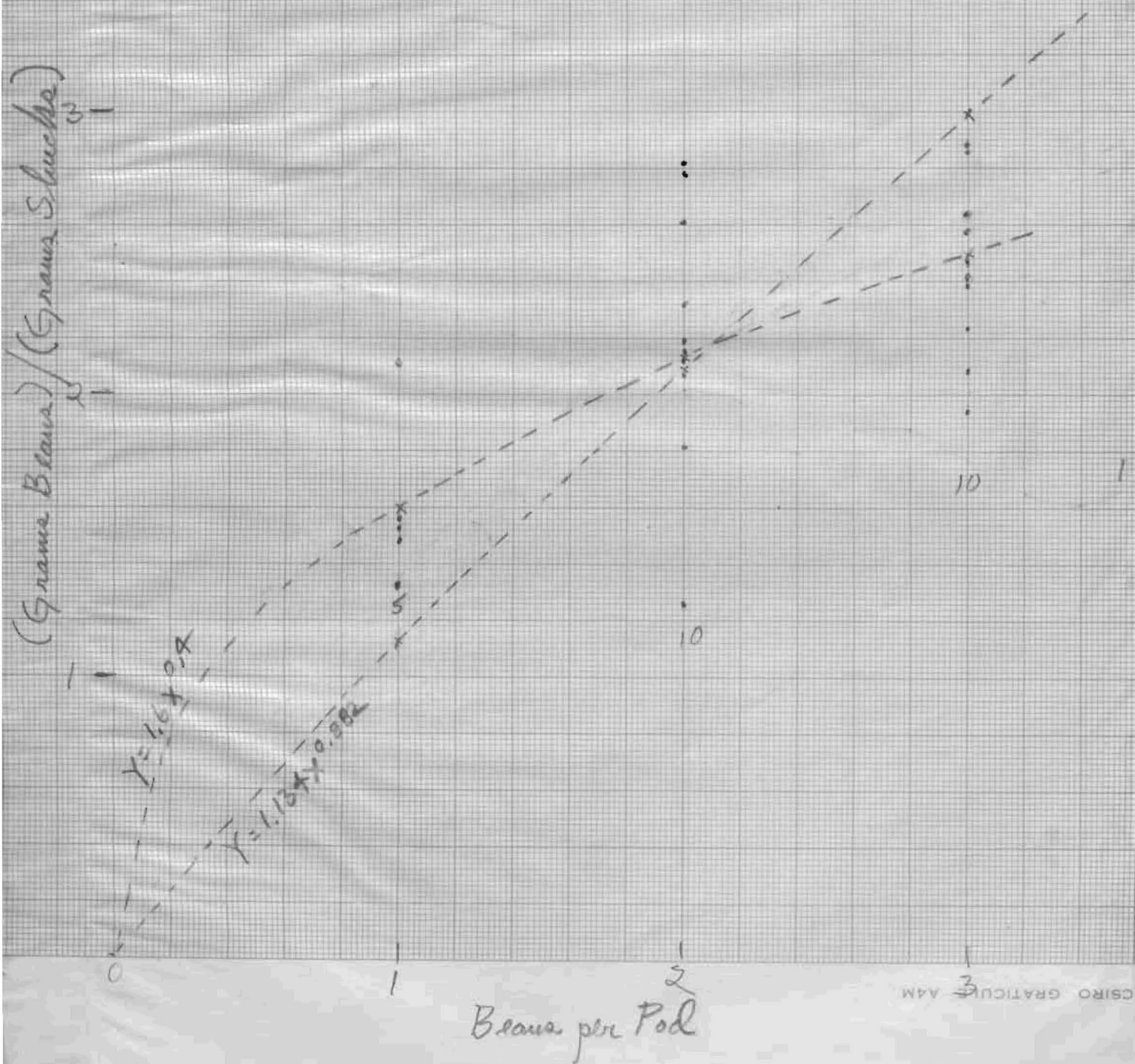
CSIRO GRATICULE A4M

4

Group N System 2
 Soluggia grown from I.C. Seed.

26 Pods, 59 beans, 30/7/64

lot 4 →



Saluggia Beans.

In what follows my Y = your Y
my X = your X

END OF COMPILATION T6107T7500
END OF COMPILATION T2707T8020
END OF COMPILATION T1851T5350

CARD OUT OF SEQUENCE AFTER CARD NUMBER 0054

VARN	D.F.	S.S.	M.S.	V.R.
REGN	1	2.044821	2.044821	183.422
DEVN	48	.535111	.011148	
TOT	49	2.579932		

1 M

LOGY= .423192+ 1.085377LOGX
R= .8902

SY	SX	CSSY	CSSX	CSP
-.28884354E+01	-.22156387E+02	.25799325E+01	.17357770E+01	.18839729E+01
VARN	D.F.	S.S.	M.S.	V.R.
REGN	1	.887004	.887004	80.210
DEVN	23	.254343	.011058	
TOT	24	1.141347		

1 N

LOGY= .350003+ 1.056959LOGX
R= .8815

SY	SX	CSSY	CSSX	CSP
-.12217521E+01	-.94344480E+01	.11413472E+01	.79397900E+00	.83920360E+00
VARN	D.F.	S.S.	M.S.	V.R.
REGN	1	.170080	.170080	19.840
DEVN	48	.411482	.008572	
TOT	49	.581562		

2 M

LOGY= .316498+ .300850LOGX
R= .5407

SY	SX	CSSY	CSSX	CSP
.19177577E+02	.11143990E+02	.58156210E+00	.18791073E+01	.56533060E+00
VARN	D.F.	S.S.	M.S.	V.R.
REGN	1	.111689	.111689	17.694
DEVN	23	.145181	.006312	
TOT	24	.256870		

2 N

LOGY= .209397+ .383211LOGX
R= .6593

SY	SX	CSSY	CSSX	CSP
.82169154E+01	.77815111E+01	.25687050E+00	.76055970E+00	.29145550E+00

1 M $Y = 2.65 X^{1.085}$

1 N $Y = 2.24 X^{1.057}$

2 M $Y = 2.07 X^{.301}$

2 N $Y = 1.62 X^{.383}$

Dear Lyote,
Your fit by eye is extremely good. The apparent error in the last set arise because you have assumed you can invert a least square fit. This is not so. I have done 1 M and 1 N the right way around good measure. i.e. $Y \text{ on } X$. Regards M

System 2

Group M				Group N	
Y	X	Y	X	Y	X
2.30	2	2.43	2	2.19	2
3.21	3	2.38	2	2.38	3
1.56	1	3.54	2	2.82	2
2.07	2	1.97	1	2.62	3
3.11	3	2.31	3	1.56	1
1.94	1	1.94	2	2.47	3
2.10	1	1.94	3	2.12	2
1.86	1	2.65	1	2.24	3
2.22	2	2.97	1	2.58	3
3.13	3	2.77	1	1.82	2
2.56	2	3.57	3	1.94	3
3.11	2	1.35	1	2.09	3
1.66	1	2.85	3	2.78	2
2.08	1	2.61	2	1.26	2
2.77	3	2.70	2	2.86	3
3.46	2	1.92	1	1.50	1
2.38	1	1.99	2	2.41	3
2.88	2	1.41	1	2.61	2
1.70	1	2.83	1	2.07	2
3.00	3	2.89	1	1.55	1
2.52	2	2.63	1	1.33	1
3.01	3	2.80	2	2.11	1
1.42	1	3.03	2	2.32	2
2.21	1	3.66	2	2.88	3
2.56	3	2.58	3	2.16	2

Fit curves of type ~~$X = AY^B$~~ use $Y = AX^B$
 Determine values of A and B
 Compute "p"