

# THE NEW YORK BOTANICAL GARDEN

BRONX PARK

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October 6, 1959

Dr. Grote Reber  
National Radio Astronomy Observatory  
P. O. Box  
Greenbank, West Virginia


Dear Dr. Reber,

I have examined your data for significance as determined by your standard errors (S.E.). If you add or subtract  $2.5 \times$  the S.E. of each set of data, the values for normal and reversed generally overlap or come together. The oz. beans/oz. shucks do not overlap and may be significant with a confidence limit of ca. 5% -- a value too small to mean much when all other differences are not significant.

This is not to imply that your results are unreal. They are simply not proved on the basis of available data.

Thank you for letting me see your work.

Sincerely yours,

  
RICHARD M. KLEIN  
Curator of Plant Physiology

rmk/bw

SYNOPSIS OF RESULTS

	Normal Vines			Reversed Vines			Average of Hills Reversed less Normal Sum Std. Errors	Reversed Vines		
	Average of Hills	Standard Error	Average of Group	Average of Hills	Standard Error	Average of Group		Percent Increase Hills	Group	
<b>KENTUCKY WONDER-- Row #6</b> (26 Normal - 24 Reversed)										
Beans per Pod	7.16	.12	7.21	7.18	.09	7.05	0.1	0.4	-2	<del>Not signif</del>
Beans per Oz	67.5	1.19	67.5	63.7	.98	64.0	-1.8	-6	-5	<del>Not signif</del>
Oz of Beans	2.22	.08	2.19	2.68	.07	2.65	3.1	21	21	<del>possibly signif</del>
Oz of Shucks										
Oz of Beans	2.40	.27	1.83	2.35	.18	2.08	-0.1	-2	14	<del>not signif</del>
Oz of Vines										
Oz of Beans	1.10	.07	1.00	1.22	.05	1.17	1.0	11	17	<del>not signif</del>
Oz Shucks & Vines										
Oz of Beans										
Oz of Dry Shucks & Vines										
<b>CORN BEAN -- Row #7</b> (20 Normal - 16 Reversed)										
Beans per Pod	6.93	.14	7.08	6.60	.17	6.62	-1.1	-5	-6	<del>not signif</del>
Beans per Oz.	60.1	1.44	59.6	63.3	3.1	60.6	.7	5	2	<del>not signif</del>
Oz of Beans	2.12	.09	2.11	2.90	.24	2.57	2.2	37	22	<del>possibly signif</del>
Oz of Shucks										
Oz of Beans	2.77	.28	2.41	3.55	.37	2.73	1.2	28	13	<del>not signif</del>
Oz of Vines										
Oz of Beans	1.18	.07	1.12	1.56	.13	1.32	1.3	32	18	<del>not signif</del>
Oz of shuck & Vines										
Oz of Beans										
Oz of Dry Shucks & Vines			1.35			1.55			15	
<b>UNKNOWN BEAN -- Row # 8</b> (22 Normal - 22 Reversed)										
Beans per Pod	3.46	.15	3.57	3.63	.09	4.43	.7	5	24	<del>not signif</del>
Beans per Oz.	53.3	1.5	52.1	50.3	.98	48.9	-1.2	-6	-6	<del>not signif</del>
Oz of Beans	2.20	.21	1.96	3.40	.25	3.01	2.6	54	54	<del>possibly signif</del>
Oz of Shucks										
Oz of Beans	.73	.06	.68	.99	.16	.74	1.2	36	9	<del>not signif</del>
Oz of Vines										
Oz of Beans										
Oz of Shucks & Vines	.52	.05	.50	.73	.09	.60	1.5	40	20	<del>not signif</del>

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Oz of Beans									
<u>Oz of Dry Shucks &amp; Vines</u>			1.34			1.54			15
Percent Black Beans	1.5	.5	1.7	3.3	.8	3.2	1.4	120	88

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