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Virus Ratings for  
Corn Strains in Missouri

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# Virus Ratings for Corn Strains in Missouri 1970

Corn strains were grown and rated for virus symptoms at the Bonacker Farm near House Springs in Jefferson County and at the Delta Center near Portageville in Pemiscot County, Missouri.

During the past five years both of these locations have had, on occasion, a high incidence of virus infected plants. However, the severity of the disease is usually much greater in Jefferson County than in Pemiscot County. Ratings in 1970 agreed with those from other years in respect the severity of the disease at these two locations (Table 1).

## MATERIALS AND METHODS

Plots were hand planted and consisted of one row of 20 plants spaced one foot apart at the Delta Center and two plants per hill spaced 20 inches at House Springs. The number of replications varied from 2 to 3 depending upon the experiment.

Planting dates were purposely delayed until the last week of May to increase the chances of a higher degree of natural infection. An abundance of Johnsongrass was growing in the area of the testing site at House Springs but a lesser amount was observed at the Delta Center.

Each plot was rated on a scale from one (indicating no injury) to nine (indicating complete susceptibility). The data reported are the averages of the replications for a given entry.

In addition to the general rating the percentage of plants showing virus symptoms was determined. Occasionally the virus symptom may have been masked by other leaf diseases; thus in some cases the virus rating and percent of virus infected plants was not in good agreement.

Ratings were made at two dates (July 16 and Aug 12) for corn strains grown at the House Springs location and only one date (July 23) at the Delta Center.

## RESULTS

### Commercial Hybrids

Commercial hybrids were obtained from private companies for the virus ratings tests. Each company was invited to include hybrids where adequate seed would be available for farmer planting in 1971. The virus ratings for the commercial hybrids grown at House Springs are given in Table 2 and the percentage of virus infected plants are presented in Table 3. Differences between the two rating dates were small with the latter date usually having slightly higher ratings. The CV's were quite low for each date with values of 12.3 and 14.5% respectively.

Virus ratings for the same group of commercial hybrids grown at the Delta Center are given in Table 4 and the percentage of virus infected plants in Table 5. Due to the lower level of infection the CV was high (43.2%).

### Uniform Test of Inbred Lines

A uniform test of 10 inbred lines was sponsored by the North Central Corn Research Committee. The virus ratings for this group of lines grown at House Springs are given in Table 6 and the percentage of virus infected plants in Table 7. Virus ratings for the same group grown at the Delta Center are presented in Table 8 and percentage of virus infected plants in Table 9.

A uniform test of 12 inbred lines sponsored by the Southern Corn Improvement Conference was rated for virus symptoms at House Springs (Table 10) and the Delta Center (Table 12). Percentages of virus infected plants are given in Tables 11 and 13 respectively.

A Uniform Inbred Evaluation Test sponsored by the North Central Research Committee involving inbred lines of two maturity groups were grown at the House Springs location and rated for virus symptoms. The virus ratings for the 52 inbred lines of the 700-800 maturity group are given in Table 14 and the percentage of virus infected plants in Table 15. Virus ratings for the 45 inbred lines in the 900 maturity group are shown in Table 16 and the percentage of virus infected plants are given in Table 17.

### DISCUSSION OF RESULTS

In most instances the agreement between virus ratings and the percentage of infected plants for a given strain was good. There was evidence that under high levels of virus infection all strains may show

virus symptoms. Host strains react to the virus by giving a range from highly tolerant to extreme susceptibility. Among the strains observed over the past five years complete immunity to the virus has not been observed.

Southern Leaf Blight (H. maydis) probably strain T, was evident at the last rating date at the House Springs location. However, the severity of the Southern Leaf Blight was not great and it was not believed to have affected the virus ratings to any extent.

The coefficients of variation (CV's) were usually lower under the higher levels of virus infection and in most instances the CV's were also lowest for the latest rating date.

Among the commercial hybrids approximately one-third of those observed exhibited a moderate level of tolerance. A greater range in virus ratings was observed among the inbred lines than among the hybrids.

Table 1. Comparative virus ratings over a four period at two locations for two single crosses, one susceptible and one tolerant to virus.

Single Cross	1967	1968	1969	1970	Mean
Jefferson County					
Mo5 x H55	5.08	8.00	8.20	7.30	7.15
Mol4W x Oh7B	1.55	1.67	5.81	4.00	3.26
Pemiscot County					
Mo5 x H55	3.80	4.67	6.33	5.33	5.03
Mol4W x Oh7B	3.01	1.35	1.00	1.70	1.77

Table 2. 1970 virus ratings for commercial hybrids grown on the Bonacker Farm near House Springs, Missouri. Experiment V-5.

		Rating Date			
		July 16, 1970		August 12, 1970	
Hybrid	Virus Rating	DMRT*	Hybrid	Virus Rating	DMRT*
Oh7B x Mo14W	4.0		Pioneer X8445	4.0	
PAG19520	4.3		Oh7B x Mo14W	4.0	
Pioneer X8445	4.3		PAG19524	4.0	
Funk Exp 23413	4.3		Funk Exp 23413	4.3	
PAG 19626	4.3		PAG 19626	4.7	
Pioneer 3147	4.7		Pioneer 3147	5.0	
Funk G4761	5.0		Stull 907y Sp	5.0	
Excel E1022	5.0		PAG 19520	5.3	
Stull 907y Sp.	5.0		Funk G-4761	5.3	
Excel E903W	5.0		Holden 1007A	5.3	
PAG 19520	5.0		Bear X872B	5.3	
Holden 1007A	5.0		Mo SX-7	5.7	
PAG SX17	5.3		PAGSX17	5.7	
Funk Exp 23334	5.3		Funk Exp 23334	5.7	
DeKalb XL389	5.3		Excel E1022	5.7	
Princeton 940	5.7		Pioneer X5138	5.7	
Mo Pipe 14	5.7		Excel E901W	6.0	
DeKalb 08116	5.7		DeKalb 08116	6.0	
Holden 1007	5.7		DeKalb XL1001	6.0	
Taylor-Evans VR-20-Y	5.7		Holden 1007	6.0	
Pioneer X5138	5.7		Taylor-Evans VR-20-Y	6.0	
Stull 700W Sp	6.0		Excel E903W	6.0	
Taylor-Evans VR-20-W	6.0		Mo17 x N7A	6.3	
DeKalb XL1001	6.0		McAllister SX6837	6.3	
Princeton 875M	6.3		McCurdy 68-103	6.7	
McAllister SX6837	6.3		Moews SM730	6.7	
Asgrow H68202A	6.3		Moews Exp 8781W	6.7	
NC+ 77SX	6.3		Princeton 875M	7.0	
Excel E944	6.3		Asgrow ASC97	7.0	
Mo SX-7	6.3		McCurdy 68-102	7.0	
McCurdy 69-125	6.3		Stull 808 SX	7.0	
McCurdy 68-103	6.7		Stull 700W Sp	7.0	
Mo881	6.7		Mo Pipe 14	7.0	
Mo17 x N7A	6.7		Taylor-Evans VR-20-W	7.0	
Embro X-3M (SX)	6.7		Princeton 960	7.0	
Asgrow A122	6.7		DeKalb XL374	7.0	
Stull 808 SX	6.7		Embro-Jupiter (3X)	7.0	
Moews Exp 8781W	6.7		Asgrow H68202A	7.0	
Princeton 960	6.7		Mo881	7.0	
Asgrow H68204A	6.7		Iowa-Mo. 325	7.0	
Holden 035	6.7		Stull 550W	7.0	
Moews SM730	6.7		Asgrow H68204A	7.0	
McCurdy 68-102	7.0		DeKalb XL389	7.0	
McAllister SX6584	7.0		Moews SM620	7.0	
Embro Jupiter (3X)	7.0		McCurdy 69-125	7.0	
NC+ Exp 69-7	7.0		NC+ Exp 69-7	7.0	
Asgrow ASC97	7.0		Excel E944	7.0	
Stull 55W	7.0		NC+ 77SX	7.0	
Embro X-4	7.0		Holden 035	7.0	
McCurdy 69-13W	7.0		Princeton 940	7.0	
Moews SM620	7.0		Embro X-4 (SX)	7.3	
Embro Plowboy (3X)	7.0		H55 x Mo5	7.3	
Iowa-Mo. SX25	7.0		NC+ 80DC	7.3	
Iowa-Mo SX18	7.0		Iowa-Mo. SX18	7.3	
Excel E901W	7.0		NC+ exp 69-2	7.3	
NC+ 80 DC	7.3		McAllister SX6584	7.3	
Moews Exp 8842W	7.3		Moews Exp 8842W	7.3	
NC+ Exp 69-2	7.3		McCurdy 69-13W	7.3	
Bear X872B	7.3		Asgrow A122	7.3	
Pioneer 3188	7.3		Iowa-Mo. SX25	7.3	
Iowa-Mo. 325	7.3		McAllister SX6948	7.7	
DeKalb XL374	7.3		McAllister SX6861	7.7	
McAllister SX6861	7.3		Iowa-Mo. SX17	7.7	
McAllister SX6948	7.7		Embro X-3m(SX)	7.7	
Iowa-Mo.SX17	7.7		Pioneer 3188	8.0	
H55 x Mo5	8.0		Embro Plowboy (3x)	8.0	

CV=12.3

CV=14.5

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.



Table 3. 1970 data on percentage of plants infected with virus on commercial hybrids tested on the Bonacker Farm located near House Springs, Missouri. Experiment V-5.

		Rating Date	
		July 16, 1970	August 12, 1970
<u>Inbred Line</u>	<u>Infected Plants %</u>	<u>Inbred Line</u>	<u>Infected Plants %</u>
PAG 19626	28.1	Oh7B x Mo14W	24.8
H55 x Mo5	28.9	Pioneer X8445	26.7
Funk Exp 23413	32.2	PAG 19524	27.0
PAG 19520	32.5	Funk Exp 23413	32.1
DeKalb XL389	32.8	Stull 907Y Sp	35.0
Oh7B x Mo14W	33.1	PAG 19626	37.1
Pioneer X8445	33.2	Mo SX-7	37.2
Stull 907Y Sp	35.0	Stull 808 SX	38.1
Holden 1007A	35.2	Holden 1007A	42.7
Stull 700W Sp	38.2	Pioneer 3188	42.9
Princeton 940	40.8	DeKalb XL1001	43.0
Pioneer 3147	44.1	Pioneer X5138	43.4
DeKalb 08116	45.0	Moews Exp 8842W	44.2
PAG 19524	46.4	Excel E901W	44.5
Excel E903W	46.5	Iowa-Mo SX17	44.7
Funk G-4761	47.9	Princeton 940	45.0
Embryo X-4 (SX)	48.3	Funk G-4761	45.3
DeKalb XL1001	48.6	PAG 19520	47.7
Holden 035	49.0	Excel E903W	48.4
Funk Exp 23334	49.7	Holden 035	49.0
Holden 1007	49.7	Asgrow ASC97	50.3
Asgrow H68202A	52.4	Taylor-Evans VR-20-Y	50.9
Taylor-Evans VR-20-Y	52.9	Holden 1007	51.6
NC+ 77SX	54.2	DeKalb XL389	53.9
Pioneer X5138	54.6	PAG SX17	53.8
PAG SX17	55.0	Embryo Jupiter 3X	54.7
Mo17 x N7A	55.2	DeKalb XL374	55.9
McCurdy 68-103	56.0	Mo17 x N7A	58.0
Princeton 960	57.0	Excel E1022	58.2
Taylor-Evans VR-20-W	57.1	McCurdy 68-102	58.3
Mo Pipe 14	57.7	Mo Pipe 14	59.2
Princeton 875M	59.2	DeKalb 08116	59.6
Mo SX-7	61.7	McAllister SX6837	59.6
Excel E1022	61.9	Princeton 960	60.6
Iowa-Mo. SX25	62.2	Funk Exp 28334E	61.9
Moews Exp 8781W	62.3	McCurdy 68-103	62.3
Embryo Jupiter 3X	62.7	NC+ 77SX	63.2
Moews SM620	63.3	Moews SM620	63.9
Excel E901W	63.5	McCurdy 69-13W	67.0
McCurdy 69-125	63.6	Excel E-944	67.1
Stull 550W	64.0	Bear X872B	67.6
McAllister SX6837	65.9	Asgrow H68202A	67.6
NC+ Exp 69-2	66.9	Embryo X-4(SX)	67.7
Excel E944	67.3	Moews Exp 8781W	67.7
McCurdy 68-102	67.6	Taylor-Evans VR-20-W	67.8
Asgrow H68204A	68.6	Stull 700W Sp	67.9
Embryo X-3M(SX)	68.9	Princeton 875M	69.6
Asgrow ASC97	70.2	Stull 550W	70.1
Moews SM730	70.3	Iowa-Mo 325	70.8
Embryo Plowboy 3X	71.8	NC+ Exp 69-7	71.5
Iowa-Mo 325	72.5	Moews SM730	71.9
Mo981	73.7	NC+ Exp 69-2	72.0
DeKalb XL374	75.7	Mo981	73.8
Iowa-Mo SX18	75.9	Stull 808SX	74.1
NC+ Exp 69-7	76.8	Embryo Plowboy (3X)	75.7
McAllister SX6861	76.9	Asgrow H68204A	76.1
Pioneer 3188	77.3	McCurdy 69-125	76.5
Asgrow A122	78.2	Asgrow A122	76.8
Iowa-Mo SX17	80.7	McAllister SX6584	77.1
Moews Exp 8842W	81.7	Iowa-Mo SX18	77.2
Stull 808 SX	83.0	Iowa-Mo SX25	78.4
McAllister SX6948	83.1	Embryo X-3M(SX)	80.3
McCurdy 69-13W	84.4	McAllister SX6861	82.9
McAllister SX6584	85.2	H55 x Mo5	83.3
Bear X872B	85.9	NC+ 80DC	83.8
NC+ 80DC	90.9	McAllister SX6948	85.1

CV=30.4

CV=30.6

Table 4. 1970 virus ratings for commercial hybrids grown at the Delta Center near Portageville, Missouri. Experiment V-6.

Hybrid	Virus Rating	DMRT*
Holden 1007	1.0	
PAG 19524	1.0	
Mo SX-7	1.0	
Embro Jupiter (3X)	1.0	
PAG 19626	1.0	
Asgrow ASC97	1.3	
PAG 19520	1.3	
Iowa-Mo. SX17	1.3	
PAG SX17	1.3	
NC+ 77 SX	1.4	
McCurdy 69-125	1.7	
Pioneer X8445	1.7	
McAllister SX6837	1.7	
Funk exp 23413	1.7	
Asgrow ASC97	1.7	
Funk G-4761	1.7	
Iowa-Mo. SX18	1.7	
Pioneer X5138	1.7	
McAllister SX6584	1.7	
Oh7B x Mo14W	1.7	
Princeton 940	1.7	
Funk exp 23334	1.7	
McCurdy 68-103	2.0	
Iowa-Mo. 325	2.0	
Moews SM620	2.0	
Mo881	2.0	
Moews Exp 8781W	2.0	
Princeton 960	2.3	
DeKalb 08116	2.3	
NC+ 80DC	2.3	
Taylor-Evans VR-20-W	2.3	
Asgrow A122	2.3	
Pioneer 3147	2.3	
Mo17 x N7A	2.3	
DeKalb XL374	2.3	
NC+ exp69-7	2.3	
Stull 808 SX	2.3	
Princeton 875M	2.7	
McCurdy 68-102	2.7	
Moews SM730	2.7	
DeKalb XL1001	2.7	
Asgrow H68204A	2.7	
DeKalb XL389	2.7	
Iowa-Mo. SX25	2.7	
McCurdy 69-13W	2.7	
Excel E901W	2.7	
Taylor-Evans VR-20-Y	3.0	
NC+ exp 69-2	3.0	
Embro X-4 (SX)	3.0	
Embro X-3M (SX)	3.0	
Stull 907 Y Sp	3.0	
Embro Plowboy (3X)	3.0	
McAllister SX6948	3.0	
Excel E1022	3.3	
Holden 035	3.3	
Mo Pipe 14	3.3	
Holden 1007A	3.3	
Stull 550W	3.7	
Moews Exp 8842W	3.7	
Pioneer 3188	3.7	
Excel E944	3.7	
McAllister SX6861	3.7	
Bear s872B	4.0	
Excel E903W	4.0	
Stull 700W sp	4.3	
H55 x Mo5	5.3	

CV=43.2

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.

Table 5. 1970 data on percentage of plants infected with virus for commercial hybrids tested at the Delta Center near Portageville, Missouri. Experiment V-6.

Hybrid	Infected Plants %	Hybrid	Infected Plants %
Mol7 x N7A	0.00	Asgrow A122	5.83
Pioneer X8475	0.00	McCurdy 68-102	5.87
Iowa-Missouri SX25	0.00	Pioneer 3188	5.87
Oh7B x Mol14W	0.00	Taylor-Evans VR-20-W	6.07
Mo SX-7	0.00	McCurdy 69-13W	6.37
Mo881	0.00	Moews Exp 8781W	6.67
NC+ 77SX	0.00	DeKalb XL374	7.03
PAG 19250	0.00	Moews SM620	7.17
Iowa Missouri SX18	0.00	DeKalb 08116	8.17
Asgrow H68202A	0.00	McAllister SX6861	8.43
PAG 19524	0.00	Taylor-Evans VR-20-Y	8.57
McAllister SX6837	0.00	DeKalb XL389	8.73
Funk Exp 23334	0.00	Moews SM730	9.07
Funk Exp 23413	0.00	NC+ 80DC	9.17
Holden 1007	0.00	Excel E901W	9.60
McCurdy 69-125	0.00	Asgrow H68204A	10.00
Embryo Plowboy (3X)	0.00	Embryo X-4 (SX)	11.00
Iowa-Missouri SX17	0.00	MoPipe 14	11.37
PAG 19626	0.00	McAllister SX6948	11.83
Embryo Jupiter (3X)	0.00	Stull 907 Y sp	11.93
PAG SX17	0.00	Holden 1007A	11.97
Funk G-4761	0.00	Stull 550W	12.13
Princeton 940	1.33	NC+ Exp 69-2	12.97
Princeton 875M	1.67	Embryo X-3M (SX)	14.37
McCurdy 68-103	1.77	DeKalb XL1001	14.70
Pioneer X5138	1.77	Holden 035	14.70
STull 808 SX	3.17	Excel E944	15.77
McAllister SX6584	3.70	Stull 700W Sp	18.07
Asgrow ASC97	4.17	Excel E903W	18.93
NC+ Exp 69-7	4.53	Excel E1022	23.23
Princeton 960	4.97	Bear X872B	24.20
Pioneer 3147	5.57	Moews Exp 8842W	26.67
Iowa-Missouri 325	5.57	H55 X Mo5	41.93

CV=115.2



Table 8. 1970 virus ratings for 10 inbred lines in the Uniform Inbred Evaluation Test sponsored by the North Central Corn Research Committee. Test grown at the Delta Center near Portageville, Missouri. Experiment V-8. Rated July 23, 1970.

Inbred Line	Virus Rating	DMRT*
Pa405	2.00	
N6J	2.50	
Tx601	4.00	
Oh7B	4.00	
Mo18W	4.50	
Va35	5.00	
B37	5.00	
E38-11-11-1	5.50	
Mo5	7.50	
H55	8.00	

CV=19.9

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.

Table 9. 1970 data on percentage of plants infected with virus for 10 inbred lines in the Uniform Inbred Evaluation Test sponsored by the North Central Corn Research Committee. Test grown at the Delta Center near Portageville, Missouri. Experiment V-8. Rated July 23, 1970.

Inbred Line	Infected Plants %
Pa405	0.0
N6J	0.0
Oh7B	24.2
B37	34.3
Va35	41.2
Mo18W	48.5
E38-11-11-1	49.1
Tx601	52.5
Mo5	81.6
H55	85.7

CV=46.40



Table 12 . 1970 virus ratings for the 12 inbred lines in the Uniform Inbred Evaluation Test sponsored by the Southern Corn Improvement Corn Conference. Grown at the Delta Center near Portageville, Missouri. Experiment V-10. Rated July 23, 1970

Inbred Line	Virus Rating	DMRT*
AKh-42	3.3	
T232	3.7	
Oh7B	4.0	
FO39-1(Miss)	4.0	
CI21	4.3	
Mp490	4.3	
T105	4.3	
CI90C	4.7	
Tx601	4.7	
Ga209	4.7	
SC343	5.0	
SC229	5.7	

CV=21.51

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.

Table 13 . 1970 data on the percentage of plants infected with virus for the 12 inbred lines in the Uniform Inbred Evaluation Test sponsored by the Southern Corn Improvement Conference. Grown at the Delta Center near Portageville, Missouri. Experiment V-10. Rated July 23, 1970.

Inbred Line	Infected Plants %
T232	17.53
Oh7B	22.17
Akh-42	22.60
Mp490	26.37
T105	32.93
CI21	41.67
Ga209	49.23
Tx601	52.40
Sc343	54.90
FO39-1(Miss)	55.87
CI90C	71.70
SC229	72.70

CV=44.38



Table 14. 1970 virus ratings for inbred lines in the Uniform Inbred Evaluation Test (700-800 maturity group) grown on the Bonacker Farm near House Springs, Missouri. Experiment V-13

		Rating Date			
		July 16, 1970		August 12, 1970	
Inbred Line	Virus Rating	DMRT*	Inbred Line	Virus Rating	DMRT*
Mo19	2.0		Mo20W	4.5	
N7B	2.5		N7B	4.5	
B49	3.0		H95	5.0	
Mo20W	3.5		Oh509	5.5	
Mo1W	3.5		Mo12	6.0	
Oh509	4.0		N28	6.0	
H92	4.0		B69	6.0	
N28	4.0		B54	6.5	
Oh510	4.5		B49	7.0	
H95	4.5		Mo14W	7.0	
B57	5.0		Mo5	7.0	
Mo14W	5.0		R177HTA	7.0	
B54	5.0		B68	7.0	
Oh511	5.0		N7A	7.0	
B69	5.5		Mo17	7.0	
H88	5.5		B57	7.0	
H93	5.5		Mo11	7.0	
H49	5.5		H88	7.0	
N22A	6.0		Mo6	7.0	
N7A	6.0		N103	7.0	
Mo12	6.0		Oh545	7.0	
N31	6.0		Mo1W	7.0	
RHy <sub>2</sub> HTB	6.0		CI31A	7.0	
B52	6.0		B37	7.0	
B37	6.0		N104	7.0	
B68	6.0		H93	7.0	
Oh508	6.0		H92	7.0	
CI31A	6.5		N101	7.0	
Oh512	6.5		N31	7.0	
Mo3	7.0		N138	7.0	
B67	7.0		H49	7.0	
N101	7.0		Oh511	7.0	
Mo5	7.0		Oh508	7.0	
Mo6	7.0		H60	7.0	
Mo17	7.0		B52	7.0	
N138	7.0		Oh510	7.0	
H60	7.0		B67	7.5	
Mo11	7.0		H94	7.5	
N103	7.0		Mo19	7.5	
B66	7.0		Mo3	7.5	
H84	7.0		Wf9	7.5	
N104	7.0		H84	7.5	
H96	7.0		Oh545	7.5	
Wf9	7.5		RHy <sub>2</sub> HTB	7.5	
H91	7.5		B73	7.5	
B14A	7.5		B14A	8.0	
Oh507	7.5		B66	8.0	
R177HTA	7.5		H96	8.0	
B73	7.5		H91	8.0	
H94	7.5		N22A	8.0	
Oh41	7.5		Oh41	8.0	
Oh545	8.0		Oh507	8.5	

CV=20.2

CV=10.4

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.

Table 15 . 1970 data on the percentage of plants infected with virus for inbred lines in the Uniform Inbred Evaluation Test (700-800 Maturity Group) grown on the Bonacker Farm near House Springs, Missouri. Experiment V-13.

Rating Date			
July 16, 1970		August 12, 1970	
Inbred Line	Infected Plants %	Inbred Line	Infected Plants %
Mo19	0.0	Mo20W	34.0
Oh509	0.0	Mo6	34.2
Mo20W	5.9	N7B	34.9
B49	11.9	H91	35.0
N7B	12.5	H92	36.1
Mo1W	16.7	B57	36.4
H95	31.0	Mo17	38.7
N28	31.8	Oh507	38.8
H93	34.0	H96	42.8
Mo12	34.3	B37	43.1
Oh511	34.9	N22A	43.8
B37	36.2	B73	44.5
B67	38.5	Mo1W	45.9
Mo5	38.7	B66	46.5
Oh545	39.5	Mo19	47.1
H92	41.7	H95	47.5
Wf9	45.3	Mo11	47.9
Oh510	46.0	Oh507	53.7
B54	49.6	N103	54.2
H49	52.1	B54	54.4
Oh508	54.0	Oh510	60.0
N31	57.0	H60	60.0
B52	57.1	B14A	61.3
B69	57.2	Oh511	62.4
RHy <sub>2</sub> HTB	57.9	B67	64.2
N22A	59.2	H88	64.6
N103	62.2	Mo12	64.9
Mo14W	63.4	N28	66.4
N101	65.2	Mo3	66.8
B68	67.6	B69	66.9
N104	68.6	B49	67.3
B73	71.7	Mo14W	70.0
Oh512	72.7	N104	72.7
CI31A	72.8	N101	73.4
N7A	73.1	B68	74.6
H88	73.3	CI31A	75.2
H60	73.4	H93	76.4
B57	74.8	Oh41	77.0
Mo6	75.9	R177HTA	80.0
H84	76.3	N7A	80.2
Oh41	77.0	Oh508	80.6
Oh507	77.3	N138	80.8
Mo17	79.9	B52	82.2
B66	80.5	Oh512	84.1
Mo3	81.1	RHy <sub>2</sub> HTB	84.3
H96	82.0	Mo5	85.7
N138	83.0	H84	86.8
R177HTA	83.4	N31	87.9
Mo11	83.6	Wf9	89.6
H91	86.6	Oh545	90.8
H94	86.7	H94	91.0
B14A	89.2	H49	93.8

CV=43.3

CV=48.6

Table 16. 1970 virus ratings for inbred lines in the Uniform Inbred Evaluation Test (900 Maturity Group) grown on the Bonacker Farm near House Springs, Missouri. Experiment V-11

		Rating Date			
		July 16, 1970		August 12, 1970	
Inbred Line	Virus Rating	DMRT*	Inbred Line	Virus Rating	DMRT*
Mo18W	1.5		T232	3.0	
T232	1.5		Oh7B	3.5	
Oh7B	1.5		Mo20W	4.5	
Mo20W	1.5		Ky226	4.5	
Ky226	2.5		T111	5.5	
Mo6	3.0		Ky222	6.0	
T204	3.0		CI21E	6.0	
Ky128	3.5		Mo14W	6.0	
T115	3.5		T204	6.0	
CI21E	4.0		T224	6.0	
Ky217	4.0		K9214	6.5	
Ky228	4.0		Ky128	6.5	
K9390	4.5		Mo10	6.5	
T222	4.5		K809	6.5	
Ky222	4.5		Mo12	7.0	
Mo12	4.5		Mo17	7.0	
T111	5.0		Mo7	7.0	
Mo17	5.0		Mo6	7.0	
K809	5.0		Ky216	7.0	
Mo14W	5.0		Mo13	7.0	
Mo10	5.0		Va85	7.0	
T224	5.0		Mo18W	7.0	
K9214	5.5		K9385	7.0	
Mo3	5.5		Va35	7.0	
Ky216	5.5		K9390	7.0	
K9385	5.5		Ky228	7.0	
T212	5.5		Ky211	7.0	
Va84	5.5		K9408	7.0	
Ky201	5.5		T115	7.0	
Mo7	6.0		T222	7.0	
T220	6.0		Va71	7.0	
T206	6.5		T212	7.0	
Mo13	6.5		Ky217	7.0	
Va85	6.5		Va84	7.0	
Va55	6.5		33-16	7.5	
Va89	7.0		T220	7.5	
Ky211	7.0		Mo3	7.5	
Va35	7.0		Ky201	7.5	
33-16	7.0		T206	7.5	
Va71	7.0		Va55	7.5	
Ky225	7.0		Ky225	7.5	
K9408	7.5		K804	8.0	
K804	7.5		T218	8.0	
T218	8.0		Va89	8.0	
Ky209	8.0		Ky209	8.5	

CV=27.3

CV=11.0

\*Duncan's Multiple Range Test -- Entries with the same line in common are not considered significantly different at the 5% level.

Table 17 . 1970 data on the percentage of plants infected with virus for inbred lines in the Uniform Inbred Evaluation Test (900 maturity group) grown on the Bonacker Farm near House Springs, Missouri. Experiment V-11

		Rating Date	
		July 16, 1970	August 12, 1970
Inbred Line	Infected Plants %	Inbred Line	Infected Plants %
Mo18W	0.0	Ky222	0.0
Mo6	0.0	K804	11.8
Oh7B	0.0	T232	13.0
Mo3	0.0	Oh7B	23.4
Mo20W	0.0	Ky209	25.0
Ky226	0.0	Ky228	26.5
Ky209	0.0	Mo3	27.8
T232	0.0	Ky225	29.6
Mo12	11.4	Ky128	41.7
T115	18.8	Mo20W	45.4
Ky228	20.6	33-16	46.9
Ky201	22.7	T111	47.9
T204	23.9	Ky226	47.9
CI21E	24.5	T204	53.3
Ky128	25.0	Va85	63.1
Mo17	26.1	T220	64.5
Ky217	26.8	Mo14W	65.0
T220	30.0	K809	65.2
Ky222	30.0	T218	65.2
Va84	33.3	Mo17	65.7
Mo10	35.3	K9408	66.2
K809	37.3	T224	66.8
T218	40.5	T222	67.5
K9390	43.5	Mo10	67.8
Mo7	46.2	Ky201	67.9
Va35	48.7	Mo18W	68.0
Mo13	49.0	CI21E	68.2
K9214	49.6	Ky211	69.3
Va85	50.0	Mo12	70.1
T111	50.0	Va84	70.9
T212	51.2	T212	72.3
T222	52.7	K9385	73.8
K9385	54.4	Mo13	75.7
Va89	54.5	Ky217	76.4
Ky216	55.0	K9214	79.7
T206	56.8	T206	79.8
Mo14W	60.0	Va89	79.8
T224	60.5	Mo7	80.4
33-16	63.9	K9390	80.8
Ly225	65.0	Mo6	81.1
K804	68.3	Va71	81.4
Va55	68.7	Ky216	83.2
Ky211	72.4	Va35	84.5
Va71	76.6	Va55	84.7
K9408	86.4	T115	87.3

CV=54.1

CV=35.2