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K. D. Wilhelmi

S. L. Kuhr

V. A. Johnson

P. J. Mattern

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U.S. Department of Agriculture
Office of Agriculture
Agency of International Development
U.S. Department of State
The Agricultural Experiment Station
Institute of Agriculture and Natural Resources
University of Nebraska – Lincoln
H. W. Ottoson, Director

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ACKNOWLEDGMENT

Cooperation of nursery collaborators from the 19 locations in 16 countries in which the first High Protein-High Lysine Observation Nursery was grown is gratefully acknowledged. This cooperative nursery would not be possible without the information and data provided by these individuals. Their responsibility for nursery management, data recording, harvesting, and return of 10-gram wheat samples to Nebraska for quality analysis is an essential component of such a program.

The assistance of personnel in the Plant Production and Protection Division, Food and Agriculture Organization of the United Nations in making nursery seed shipments to some of the testing sites is acknowledged. We acknowledge also the continued assistance and cooperation of wheat personnel of the International Maize and Wheat Improvement Center, Mexico, D.F. We express our sincere appreciation to all these organizations and people. The efforts of Dr. James E. Stroike, former University of Nebraska employee and now employed elsewhere, in assembling and distributing this nursery, is hereby acknowledged.

TABLES

SUMMARY

The first high protein-high lysine (HP-HL) observation nursery consisted of 280 entries of which 256 were early and advanced generation lines. The remaining 24 nursery entries were comprised of six check varieties repeated four times. The nursery was distributed to 24 locations in 20 countries in the fall of 1974 for planting the 1975 crop. Nineteen locations were in the Northern Hemisphere and the other five were in the Southern Hemisphere. The nurseries were completed at 79% of the sites. Data are reported on grain protein, lysine (% of protein) and adjusted lysine (% of protein) from all sites returning seed samples. Yield data from Yuma, Arizona and other miscellaneous data from several locations also are reported.

A large proportion of the experimental lines produced mean grain protein levels higher than those of the check varieties, Centurk and CR8156, and many were more productive than these check varieties in a replicated irrigated nursery at Yuma, Arizona. Lines from the cross Nap Hal/CI13449 generally exhibited the highest combined levels of protein, lysine, and yield. Several lines from CI13449/Centurk were relatively low in grain protein percentage, as would be anticipated based on parentage, but were highly productive. The cross Nap Hal/CI13449 has produced many lines with elevated lysine as a percentage of protein. Other lines from crosses involving CI13449 with other parents showed elevated protein or lysine/protein levels in combination with high productivity.

Results of the First High Protein-High Lysine Wheat Observation Nursery Grown in 1975

K. D. Wilhelmi, S. L. Kuhr, V. A. Johnson and P. J. Mattern[1]

This is the first report of results from a high protein-high lysine observation (HP-HL) nursery organized in 1974 by the Nebraska Agricultural Experiment Station and the Agricultural Research Service, U.S. Department of Agriculture, under a contract with the Agency for International Development, U.S. Department of State. Primary objectives of this nursery are to:

1. Systematically provide breeders and cooperators with superior genetic germplasm for elevated levels of protein and/or lysine.

2. Test the degree of expression of the high protein and high lysine traits in a diverse array of environments.

Funding from USAID has permitted the Nebraska wheat program to establish breeding nurseries at Lincoln, Nebraska for evaluation of winter genotypes and at Yuma, Arizona for both spring and winter growth habit lines. Advanced experimental lines distributed to breeders and cooperators in the 1st HP-HL nursery were selected from numerous hybrid combinations of both spring and winter growth habit types. All exhibited elevated protein and/or elevated lysine in early generations from the Nebraska and Arizona trials. The lines also were minimally selected for agronomic type, winter-hardiness, maturity, and yield.

PROCEDURES

Nursery seed for planting was provided to each cooperator in 10-gram amounts of each entry. Seed for planting in the Northern Hemisphere was shipped via air mail from Nebraska in early September for the fall planting in October, November, or December. Since the seed of the entries represented in the nursery was either

[1] Assistant Professor, Wheat Breeding, University of Nebraska–Lincoln; Research Assistant, University of Nebraska–Lincoln; Research Agronomist, Agricultural Research Service, U.S. Department of Agriculture, and Professor, University of Nebraska–Lincoln; Professor, Cereal Quality, University of Nebraska–Lincoln, respectively. Cooperative investigations of the Nebraska Agricultural Experiment Station and Agricultural Research Service, U.S. Department of Agriculture, Lincoln Nebraska, under Contract No. AID/ta-C-1093 with the Agency for International Development, U.S. Department of State.

from the Yuma, Arizona or Lincoln, Nebraska breeding nurseries, which were harvested from May-July, 1974, distribution of the nurseries was delayed until data processing and seed packaging were completed. For the Southern Hemisphere, seed was shipped in December for planting in May or June of 1975. Each cooperator was encouraged to manage the nursery in a manner consistent with local variety-testing procedures.

A pedigree list of the 280 entries was distributed to each cooperator in advance of the crossing season. Field books were not provided since cooperators were not required to collect field data. However, data reported voluntarily by some cooperators have been included in this report. Cooperators were requested to return to the University of Nebraska a 10-gram seed sample from each harvested plot. Protein and lysine analyses were completed at the University of Nebraska Wheat Quality Laboratory.

The HP-HL nursery was grown in a diverse array of environments and climatic conditions. It was anticipated that not all entries would perform well at all locations. Each cooperator was encouraged to identify and harvest seed from the best lines agronomically at his location and to utilize these lines in crosses and for further local evaluation.

Experimental Lines

The nursery consisted of 280 entries of which 256 were early and advanced generation lines. The remaining 24 nursery plots were comprised of six check varieties: Centurk (U.S.A., NE) was chosen for its winterhardiness and high yield potential, Lancota (U.S.A., NE) and Atlas 66 (U.S.A., NC) for their elevated grain protein levels, C.I. 13449 for its high lysine, and CR8156 (Mexico) and Bezostaya 1 (U.S.S.R.), spring and winter wheats, respectively, for their high grain yield potential and broad adaptation. With exception of the check varieties, entries 1-260 were experimental lines from the USDA, ARS-University of Nebraska wheat breeding program. Entries 261-277 emanated from the CIMMYT-Mexico spring wheat breeding program.

The experimental lines comprising the first HP-HL observation nursery resulted from hybrid combinations involving relatively diverse germplasm. Since genes for high protein and/or lysine in wheat are present both in spring and winter growth-habit types, numerous spring x winter crosses were made to accumulate these genes in lines of each growth habit type. All lines were classified for growth habit and range from spring to intermediate to winter types. Pedigrees of the experimental lines, growth habit and plant height classifications and selection attributes appear in Table 1.

Experimental lines selected for inclusion in this nursery possess elevated levels of grain protein, lysine/protein, or unique combina-

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height[1]	Selection attributes[2]
1	Centurk	72Y 3,054	Winter	T	(standard winter check)
2	Lancota	72Y 3,050	"	T	(high protein check)
3	CI13449	74Y 5,695	"	S	(high lysine check)
4	CI13449//Atl 66/Cmn	74CC10,682	"	S	HP-HL
5	"	" 699	"	MS	"
6	CI13449/NB66403	" 735	"	MS	"
7	CI13449/3/Atl 66/Cmn/2/Wrr	" 813	"	S	"
8	"	" 820	"	M	"
9	"	" 827	"	S	"
10	"	" 830	"	S	"
11	"	" 847	"	S	"
12	"	" 527	"	M	HP
13	"	" 530	"	M	HP-HL
14	Nrn16/CI12500/2/Ben/3/NB66547	" 538	"	S	"
15	"	" 541	"	S	HP
16	"	" 544	"	S	HP-HL
17	"	" 553	"	S	HP
18	"	" 565	"	S	HP-HL
19	Txl682/3/At166/Wi/2/NB69689	" 026	"	M	HP
20	Txl682/3/CI13447/2/At166/Cmn	" 039	"	M	HP-HL
21	"	" 043	"	M	"
22	Ctk/3/Aiv/CI13857/2/CI13447	" 099	"	MS	HL
23	"	" 117	"	MS	HL
24	NB68437/NB Rest. 3954	" 203	"	MS	HP
25	NB69581/3/At166/Cmn/2/CI13447	" 242	"	S	HP-HL
26	San Pastore/6/NB69565/5/Fert. F_3 3528 Mq1/1/Oro/3/Oro/2/Tm	" 259	"	M	HP
27	At166/Cmn/NB Rest. 3547	" 333	"	M	HP
28	CI13447/3/Cmn/Ot/2/At166/Cmn	" 344	"	M	HP-HL
29	NB69566/4/Suwon 85/3/At166/Cmn/2/Hume	" 438	"	MS	HP-HL
30	" "	" 448	"	S	"
31	" "	" 453	"	S	"
32	NB69633/4/Suwon 85/3/At166/Cmn/2/Hume	" 498	"	MS	"
33	" "	" 499	"	MS	"
34	" "	" 503	"	MS	"
35	" "	" 504	"	MS	"
36	" "	" 507	"	MS	"
37	" "	" 514	"	MS	"
38	Jang Kwang//At166/Cmn, (NB66569)	" 595	"	MS	HP
39	" "	" 598	"	S	HP
40	" "	" 607	"	S	HP
41	Atlas 66	72Y 3,036	Intermediate	T	--
42	CR8156	74Y 5,901	Spring	M	(high protein check) (Standard spring check) (standard yield check)
43	Bezostaya 1	72Y 3,040	Winter	M	HP
44	Jang Kwang//At166/Cmn, (NB66574)	74CC10,644	"	MS	"
45	"	" 649	"	S	"
46	"	" 653	"	MS	"
47	"	" 655	"	S	"
48	"	" 663	"	S	"
49	"	" 666	"	S	"
50	Suwon 85//At166/wi	74L 11,570	"	T	HP-HL

[1] T=tall, MT=medium tall, M=medium, MS=medium short, S=short.

[2] HP=high protein, HL=high lysine.

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975. Continued.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height	Selection attributes
51	Suwon 85//At166/wi	74L 11,629	Winter	MT	HP-HL
52	"	" 637	"	MT	"
53	Ridit/2/Utah Kanred/3/At166/Cmn	" 094	"	MT	HP
54	CI13449/3/Ky 58/2/Nth/ $(C\text{-}T\text{-}M\text{-}H)^2$	" 10,927	"	MT	"
55	CI13449/Centurk	" 945	"	M	HL
56	"	" 953	"	M	HL
57	"	" 972	"	M	"
58	"	" 977	"	M	"
59	"	" 978	"	M	"
60	"	" 980	"	M	"
61	"	" 985	"	M	"
62	"	" 11,014	"	M	"
63	"	021	"	M	"
64	"	" 027	"	MT	"
65	"	" 029	"	MT	"
66	"	" 032	"	MT	"
67	"	" 037	"	MT	"
68	"	" 041	"	M	"
69	"	" 045	"	M	"
70	CI13447/3/At166/Cmn/2/Hume	" 120	"	MT	HP-HL
71	"	" 160	"	M	"
72	CI13447/3/Lancer/2/At166/Cmn	" 171	"	S	"
73	"	" 189	"	MS	"
74	"	" 207	"	M	"
75	"	" 222	"	T	"
76	"	" 227	"	MS	"
77	"	" 233	"	T	"
78	"	" 273	"	MS	"
79	"	" 289	"	MT	"
80	"	" 297	"	MS	"
81	Centurk	72Y 3,054	"	T	(winter check)
82	Lancota	72Y 3,050	"	T	(high protein check)
83	CI13449	74Y 5,695	"	S	(high lysine check)
84	CI13447/3/Lancer/2/At166/Cmn	74L 11,303	"	M	HP-HL
85	CI13447/3/At166/Wi/2/Winalta Sel.68-8913	" 314	"	MT	"
86	" " "	" 324	"	MS	"
87	" "	" 327	"	MT	"
88	CI13447/3/At166/Cmn/2/Wrr	" 338	"	T	"
89	"	" 341	"	MT	"
90	"	" 344	"	MT	"
91	"	" 353	"	T	"
92	"	" 360	"	MT	"
93	"	" 361	"	MT	"
94	"	" 364	"	MT	"
95	"	" 385	"	MS	"
96	"	" 394	"	T	"
97	CI13447//At166/Cmn	" 397	"	M	"
98	"	" 416	"	MS	"
99	"	" 425	"	MT	"
100	"	" 449	"	MS	"
101	"	" 470	"	MS	"
102	"	" 480	"	MT	"
103	Ardito/3/28MA PI180634/4/Lancer/2/ At166/Cmn	" 681	"	M	"
104	Centurk/3/Fert. F_3 3240 (3524)/2/Tmp/ CI12406	" 713	"	T	"
105	Purd. 4930-A6-28-2-1//Fert F_3 3367 (3547)/CI13857	" 899	"	MT	"

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975. Continued.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height	Selection attributes
106	At166/2/Wi/3/Winalta Sel. 68-8913/4/ At166/Cmn	74L 11,914	Winter	T	HP
107	At166/Cmn/2/Wrr/3/NB69655	" 935	"	T	"
108	"	" 941	"	MT	"
109	"	" 957	"	T	"
110	"	" 12,005	"	T	"
111	At166/Cmn//NB69652	" 11,972	"	T	"
112	"	" 12,149	"	T	"
113	At166/Cmn//NB69690	" 189	"	MT	"
114	"	" 208	"	T	"
115	"	" 241	"	T	"
116	"	" 281	"	T	"
117	"	" 525	"	T	"
118	"	" 536	"	T	"
119	At166/Wi//NB69689	" 392	"	MT	"
120	At166/Cmn/2/Wrr/3/NB69686	" 555	"	MT	"
121	Atlas 66	72Y 2,036	Intermediate	T	(high protein check)
122	CR8156	74Y 5,901	Spring	M	(standard spring check)
123	Bezostaya 1	72Y 40	Winter	M	(standard winter check)
124	At166/Cmn//NB69655	74L 12,299	"	T	HP
125	"	" 306	"	T	"
126	"	" 329	"	T	"
127	"	" 338	"	T	"
128	"	" 367	"	T	"
129	"	" 481	"	MT	"
130	"	" 485	"	T	"
131	At166/Cmn//NB69667	" 617	"	T	"
132	"	" 631	"	MT	"
133	"	" 636	"	T	"
134	At166/Cmn//Centurk	" 837	"	M	"
135	"	" 840	"	T	"
136	"	" 843	"	M	"
137	"	" 844	"	MT	"
138	"	" 849	"	T	"
139	"	" 854	"	M	"
140	"	" 868	"	MT	"
141	"	" 869	"	MT	"
142	At166/Cmn//CI13449	" 592	"	MT	HP-HL
143	"	" 596	"	MT	"
144	"	" 604	"	T	"
145	"	" 888	"	T	"
146	"	" 890	"	T	"
147	"	" 906	"	T	"
148	"	" 913	"	MT	"
149	"	" 929	"	T	"
150	"	" 935	"	T	"
151	NB69566/CI13449	" 832	"	M	"
152	"	" 834	"	M	HL
153	NB69566/3/Fert F_3 3240 (3524)/2/Tmp/ CI12406	" 779	"	M	"
154	NB69566//Fert F_3 3367 (3547)/CI13857	" 791	"	T	HP
155	NB69566/CI13447	" 741	"	MT	HL
156	"	" 748	"	M	"
157	"	" 769	"	MT	"
158	"	" 773	"	MT	"
159	At166/Cmn//CI13447	" 667	"	T	HP-HL
160	"	" 670	"	T	"

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975. Continued.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height	Selection attributes
161	Centurk	72Y 3,054	Winter	T	(Standard winter check)
162	Lancota	72Y 3,050	"	T	(high protein check)
163	CI13449	74Y 5,695	"	S	(high lysine check)
164	At166/Cmn/3/Fert F_3 3292 (3528)/2/ CI12406	74L 12,703	"	MT	HP-HL
165	" "	705	"	MT	"
166	Nap Hal/Atlas 66	74Y 5,333	"	T	"
167	"	" 5,353	"	MT	"
168	"	" 5,355	"	MT	"
169	"	" 5,463	"	MT	"
170	Nap Hal/CI13449	" 5,657	"	S	"
171	"	" 5,677	"	S	"
172	"	" 5,699	"	S	"
173	"	" 5,712	"	S	"
174	"	" 5,721	"	S	"
175	"	" 5,722	"	S	"
176	"	" 5,731	"	S	"
177	"	" 5,733	"	S	"
178	"	" 5,763	"	S	"
179	Nap Hal/Atlas 66	" 5,317	Intermediate	MS	"
180	"	" 5,342	"	MT	"
181	"	" 5,412	"	T	"
182	"	" 5,535	"	MT	"
183	"	" 5,531	"	MT	"
184	"	" 5,579	"	MT	"
185	"	" 5,584	"	MS	"
186	"	" 5,587	"	MT	"
187	Nap Hal/CI13449	" 5,619	"	S	"
188	"	" 5,623	"	S	"
189	"	" 5,629	"	S	"
190	"	" 5,630	"	S	"
191	"	" 5,638	"	S	"
192	"	" 5,649	"	S	"
193	"	" 5,655	"	M	"
194	"	" 5,660	"	S	"
195	"	" 5,662	"	M	"
196	"	" 5,674	"	MT	"
197	"	" 5,701	"	S	"
198	"	" 5,719	"	S	"
199	"	" 5,720	"	S	"
200	"	" 5,723	"	S	"
201	Atlas 66	72Y 3,036	"	T	(high protein check)
202	CR8156	74Y 5,901	Spring	M	(standard spring check)
203	Bezostaya 1	72Y 3,040	Winter	M	(standard yield check)
204	Nap Hal/CI13449	74Y 5,742	Intermediate	S	HP-HL
205	"	" 5,750	"	S	"
206	"	" 5,775	"	S	"
207	"	" 5,777	"	S	"
208	"	" 5,791	"	MT	"
209	"	" 5,851	"	S	"
210	"	" 5,856	"	S	"
211	"	" 5,860	"	S	"
212	"	" 5,861	"	S	"
213	"	" 5,862	"	S	"
214	"	" 5,863	"	S	"
215	"	" 5,868	"	S	"

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975. Continued.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height	Selection attributes
216	Nap Hal/CR8156	74Y 5,888	Intermediate	MS	HP-HL
217	Nap Hal/Atlas 66	" 5,310	Spring	MT	"
218	"	" 5,314	"	T	"
219	"	" 5,319	"	MS	"
220	"	" 5,336	"	T	"
221	"	" 5,339	"	MT	"
222	"	" 5,345	"	T	"
223	"	" 5,374	"	MT	"
224	"	" 5,393	"	MT	"
225	"	" 5,398	"	MT	"
226	"	" 5,407	"	MT	"
227	"	" 5,413	"	T	"
228	"	" 5,440	"	T	"
229	"	" 5,445	"	T	"
230	"	" 5,461	"	T	"
231	"	" 5,476	"	T	"
232	"	" 5,500	"	MS	"
233	"	" 5,548	"	MT	"
234	"	" 5,555	"	MS	"
235	"	" 5,558	"	MT	"
236	"	" 5,559	"	MT	"
237	"	" 5,564	"	MT	"
238	"	" 5,566	"	MT	"
239	Nap Hal/CI13449	" 5,610	"	S	"
240	"	" 5,654	"	M	"
241	Centurk	72Y 3,054	Winter	T	(standard winter check)
242	Lancota	" 3,050	"	T	(high protein check)
243	CI13449	74Y 5,695	"	S	(high lysine check)
244	Nap Hal/CI13449	" 5,688	Spring	MT	HP-HL
245	"	" 5,703	"	S	"
246	"	" 5,704	"	S	"
247	"	" 5,706	"	S	"
248	"	" 5,751	"	S	"
249	"	" 5,753	"	S	"
250	"	" 5,757	"	S	"
251	"	" 5,764	"	MT	"
252	"	" 5,773	"	S	"
253	"	" 5,850	"	S	"
254	"	" 5,852	"	S	"
255	Nap Hal/CR8156	" 5,879	"	S	"
256	"	" 5,880	"	MT	"
257	"	" 5,892	"	MS	"
258	"	" 5,903	"	MS	"
259	"	" 5,911	"	S	"
260	CI13447/3/Atl66/Cmn/2/Hume	74L 13,018	Winter	T	"
261	CC/Inia//Cno/SC	74Y 3,507	Spring	S	HP
262	Meng.//Cno"S"/No. 66	" 3,508	"	M	"
263	Cno/SC//No. 66/Tiba 63	" 3,511	"	S	"
264	No. 66/Gallo	" 3,513	"	S	"
265	Cno/2*Inia//Bb/Cno	" 3,516	"	S	"
266	"	" 3,518	"	M	"
267	Tob.66/Cno"S"/2/Tob.66/CR8156/3/Bb	" 3,520	"	VS	"
268	Cal/3/CC/CR8156/2/Cno"S"/5/Bb/4/Nov.67	" 3,542	"	S	"
269	" "	" 3,544	"	S	"
270	Cno/No.66/3/Wal/2/Bb/Cno	" 3,549	"	M	"

Table 1. Pedigree, growth habit, plant height, and selection attributes for entries tested in the first high protein-high lysine observation nursery in 1975. Concluded.

Entry no.	Variety or Pedigree	Selection number	Growth habit	Plant height	Selection attributes
271	Meng//Cno"S"/No. 66	74Y 3,561	Spring	M	HP
272	Cno*2/Inia//Bb/Cno	" 3,579	"	M	"
273	Cal//Cno/Son 64/3/Cno"S"/2/Nad/Chris/ 4/Son 64/Kl. Rend.	" 3,584	"	S	"
274	Cal/3/CC/CR8156/2/Cno"S"/4/Cal/Sar	" 3,585	"	S	"
275	Bb/Cno/3/Cal/CC/2/SC/Nad	" 3,587	"	M	"
276	Cal/3/CC/CR8156/2/Cno"S"/CR8156	" 3,609	"	M	"
277	Cno/Sc//Cno/PJ. 62/3/Tob.66/Cfn//Bb	" 3,617	"	S	"
278	Atlas 66	72Y 3,036	Intermediate	T	(high protein check)
279	CR8156	74Y 5,901	Spring	M	(standard spring check)
280	Bezostaya 1	72Y 3,040	Winter	M	(standard yield check)

tions of both traits based on preliminary laboratory evaluation at Lincoln, Nebraska. Minimal selection pressure also had been applied for agronomic traits such as yield potential and plant height.

Nursery Sites

The nursery was distributed to 24 locations in 20 countries (Table 2). Nineteen locations were in the Northern Hemisphere and the other five were in the Southern Hemisphere at Bordenave, Argentina; Herval and Passo Fundo, Brazil; Temuco, Chile; and Bethlehem, South Africa. The latitude, longitude, and elevation of each site is given in Table 3.

Ten-gram wheat samples for quality analyses from each harvested entry were received from 19 locations. Those locations failing to return seed samples included Kabul, Afghanistan; Herval, Brazil; Cambridge, England; New Delhi, India, and Logrono, Spain. Seed for these sites either arrived there too late for planting or the harvested seed was of such poor quality, due to abnormal growing conditions, that quality analyses would not have provided reliable information.

DATA SUMMARIZATION AND STATISTICAL TREATMENT

The University of Nebraska Wheat Laboratory performed whole grain quality analyses as follows:

Protein: measured by the Kjeldahl Method and reported on a dry weight moisture basis of the whole grain. Unit of measurement = percent.

Lysine/Protein: measured by a Beckman 120C Amino acid analyzer. Unit of measurement = lysine (% of protein).

Adjusted Lysine/Protein: lysine/protein values adjusted to population mean protein levels using regression procedures. Unit of measurement = percent.

Table 2. Nursery sites and cooperators of the first high protein-high lysine observation nusery in 1975.[1]

Country	Station	Cooperator(s)
Afghanistan	Kabul	Dr. M. S. Julalyar; F & A Officer, USAID
Argentina	Bordenave	Ing. E. F. Godoy; Ing. Agr. E. Garbini
Brazil	Herval	Mr. M. A. B. Rocha
Brazil	Passo Fundo	Dr. Augusto Carlos Baier
Chile	Temuco	Dr. I. Ramirez
Egypt	Alexandria	Dr. Ali Salem
England	Cambridge	Dr. F. G. H. Lupton
Hungary	Martonvasar	Dr. S. Rajki; Dr. L. Balla
India	New Delhi	Dr. M. V. Rao
Iran	Karaj	Dr. H. Kaveh
Jordan	Amman	Mr. Zulkifl Ghosheh; Mr. Said Ghezawi
Korea	Suwon	Dr. Chang Hwan Cho; Dr. H. O. Choi
Lebanon	Tel-Amara	Dr. J. P. Srivastava; Dr. G. Kingma
Nepal	Kathmandu	Dr. A. N. Bhattarai; Mr. S. Pitts
Netherlands	Wageningen	Dr. J. Mesdag
Pakistan	Islamabad	Dr. Armando Campos; Dr. M. Tahir
South Africa	Bethlehem	Mr. B. Lombard
Spain	Logrono	Dr. P. de la Hera
Turkey	Ankara	Dr. Art Klatt; Dr. A. Demirlicakmak
Turkey	Eskisehir	Dr. T. Atay
USA	Arizona	Dr. V. A. Johnson
USA	Nebraska	Dr. V. A. Johnson, Dr. J. W. Schmidt
USA	Oklahoma	Dr. E. L. Smith
Yugoslavia	Zagreb	Dr. J. Potocanac

[1] Seed was distributed to 24 locations in 20 different countries.

Yield of grain: based on a nursery grown at Yuma, Arizona consisting of four replications of the 280 entries. Unit of measurement = quintals per hectare.

Seed grade: seed samples from Argentina, Chile, Egypt, Korea, and Lincoln, Nebraska were graded on a 1-9 scale. Unit of measurement: 1 = excellent, 9 = very poor.

Disease and agronomic data collected at several locations are reported in individual site tables together with protein and lysine data.

Individual site values and ranks for protein and lysine data for entries in the first HP-HL observation nursery appear in Tables 4-22. Simple correlation coefficients between the grain quality traits

Table 3. Latitude, longitude and elevation of nursery sites in the first high protein-high lysine observation nursery in 1975.

Country	Station	Latitude	Longitude	Elevation (meters)
Argentina	Bordenave	S37° 50′	W63° 01′	212
Brazil	Passo Fundo	S28° 15′	W52° 24′	684
Chile	Temuco	S38° 40′	W72° 25′	332
Egypt	Alexandria	N31° 42′	E34° 56′	75
Hungary	Martonvasar	N46° 10′	E20° 00′	80
Iran	Karaj	N35° 48′	E50° 58′	1300
Jordan	Amman	N36° 02′	E31° 15′	770
Korea	Suwon	N37° 16′	E126° 59′	37
Lebanon	Tel-Amara	N33° 51′	E35° 28′	950
Nepal	Kathmandu	N27° 40′	E85° 20′	1369
Netherlands	Wageningen	N51° 28′	E05° 38′	7
Pakistan	Kaghan	N35° 00′	E73° 40′	2133
South Africa	Bethlehem	S28° 10′	E28° 18′	1631
Turkey	Ankara	N39° 45′	E32° 40′	850
Turkey	Eskisehir	N36° 45′	E30° 95′	789
USA	Arizona	N35° 60′	W114° 60′	37
USA	Nebraska	N41° 10′	W96° 25′	360
USA	Oklahoma	N36° 06′	W97° 04′	270
Yugoslavia	Zagreb	N49° 49′	E15° 59′	177

also are shown. Data for the check cultivars from each test site were subjected to analyses of variance procedures for the randomized complete block design to obtain estimates of experimental error. Least significant differences (L.S.D.), coefficients of variation (C.V.), and means of check cultivars were calculated and are shown for all locations except Tel-Amara, Lebanon; Lincoln, Nebraska; and Passo Fundo, Brazil.

Table 23 contains means of protein and lysine for 256 experimental lines and 6 check varieties averaged over locations from which seed samples were received. Yield data from the replicated nursery at Yuma, Arizona also are included in Table 23. Check variety means and statistics from the analyses of variance are presented as well. Location means averaged across all entries with statistics from the analyses of variance are given in Table 24.

Only three locations provided seed samples for all experimental entries. Results from these analyses, which included Hungary, Turkey, and Jordan, are presented in Table 25. Check variety means, statistics from the analyses of variance, and individual location means also are listed.

Protein and lysine data for 133 experimental lines and five check varieties averaged and ranked across 16 locations from which seed samples were received are listed in Table 26 along with replicated

yield data from Yuma, Arizona. Check variety means and statistics from the analyses of variance also are presented. Individual location means and ranks and statistics from analyses of variance combining data from the 16 sites appear in Table 27.

Seventeen locations provided seed samples from a common group of 60 experimental lines and three check varieties. Mean quality data, yield data from Yuma, Arizona, check variety means, and various statistics are summarized in Table 28. Table 29 contains location mean and ranks for protein and lysine along with statistics computed from combined statistical analyses over locations.

Statistical analyses for protein and lysine of the six check varieties grown at locations from which seed samples from either three or four replications were received are reported in Table 30. Nine sites reported check variety data from three replications and six sites from four replications.

RESULTS AND DISCUSSION

Mean protein and lysine values for nursery entries averaged across all locations from which samples were available for analyses are reported in Table 23. Number of sites ranged from 12 to 16. Direct comparisons of protein and lysine values contained in Table 23 have limited value only due to the unequal number of sites on which the values are based. A large proportion of the experimental lines produced mean grain protein levels higher than those of the check varieties Centurk and CR8156 and many were more productive than these check varieties in the replicated nursery at Yuma, Arizona.

Table 26 contains mean protein and lysine value for 133 experimental lines based on 16 common sites from which seed samples were received together with yield data from Yuma, Arizona. One hundred eight of the entries were higher in protein on the average than the check variety Centurk and 61 were higher than Lancota. Nine of these were higher yielding than Lancota at Yuma, Arizona and 43 were higher yielding than Centurk. Data for selected lines in which high protein and good yield potential have been combined appear in the tabulation that follows:

Entry no.	Pedigree	$\bar{X}$ Protein %	$\bar{X}$ Lysine/ protein %	$\bar{X}$ Adjusted lysine/ protein %	$\bar{X}$ Yuma, yield q/ha[1]
126	At166/Cmn/ /NB69655	17.4	2.9	3.1	57.9
128	"	17.3	2.9	3.0	76.9
118	At166/Cmn/ /NB69690	17.0	2.9	3.1	58.5
127	At166/Cmn/ /NB69655	16.7	2.8	3.1	71.9
171	Nap Hal/CI13449	16.6	3.3	3.4	61.2
193	"	16.1	3.1	3.2	58.2

Entry no.	Pedigree	$\bar{X}$ Protein %	$\bar{X}$ Lysine/ protein %	$\bar{X}$ Adjusted lysine/ protein %	$\bar{X}$ Yuma, yield q/ha[1]
194	"	15.9	3.2	3.4	72.1
135	At166/Cmn/ /Centurk	15.9	3.0	3.1	57.5
109	At166/Cmn/2/Wn/3/NB69655	15.7	2.9	3.1	69.0
207	Nap Hal/CI13449	15.6	3.2	3.3	57.8
249	"	15.5	3.3	3.4	70.1
205	"	15.5	3.3	3.4	65.4
248	"	15.4	3.2	3.3	63.7
250	"	15.4	3.2	3.3	65.3
Check varieties:					
Atlas 66		16.8	2.9	3.0	39.9
Bezostaya 1		14.8	2.9	3.0	57.9
Centurk		14.1	3.1	3.1	56.5
Lancota		15.1	2.8	2.9	60.4

[1] Yield data from Yuma, Arizona based on 4 observations for each entry and 16 observations for each check variety.

Lines selected from the cross CI13449/Centurk were relatively low in grain protein percentage but were highly productive at Yuma, Arizona. This was anticipated since neither parent variety is known to carry major genes for protein and both varieties have been high-yielding at Yuma. Lines from Nap Hal/CI13449 generally exhibited the highest combined high protein, high lysine and high yield. Some are contained in the tabulation that follows:

Entry no.	Pedigree	$\bar{X}$ Protein %	$\bar{X}$ Lysine/ protein %	$\bar{X}$ Adjusted lysine/ protein %	$\bar{X}$ Yuma, AZ yield q/ha
171	Nap Hal/CI13449	16.6	3.3	3.4	61.2
193	"	16.1	3.1	3.2	58.2
194	"	15.9	3.2	3.4	72.1
207	"	15.6	3.2	3.3	57.8
249	"	15.5	3.3	3.4	70.1
205	"	15.5	3.3	3.4	65.4
248	"	15.4	3.2	3.3	63.7
250	"	15.4	3.2	3.3	65.3
Check varieties:					
Atlas 66		16.8	2.9	3.0	39.9
CI13449		13.3	3.3	3.3	71.6
Lancota		15.1	2.8	2.9	60.4
Bezostaya 1		14.8	2.9	3.0	57.9
Centurk		14.1	3.1	3.1	56.5

Lines exhibiting elevated lysine as a percentage of protein came predominantly from the cross Nap Hal/CI13449 (Tables 26, 28). This cross has produced several highly productive lines with grain lysine levels equivalent to or higher than either parent variety. Some experimental lines from other crosses involving CI13449 as one parent and other combinations as the second parent also showed elevated protein or lysine/protein levels. Experimental lines that were productive at Yuma and high in lysine but with only normal to slightly above-normal protein content on the average included:

Entry no.	Pedigree	$\bar{X}$ Protein %	$\bar{X}$ Lysine/ protein %	$\bar{X}$ Adjusted lysine/ protein %	$\bar{X}$ Yuma, AZ yield q/ha
245	Nap Hal/CI13449	15.1	3.3	3.4	70.3
247	"	15.1	3.3	3.4	70.9
210	"	14.8	3.3	3.4	73.1
189	"	14.8	3.2	3.3	58.6
209	"	14.3	3.4	3.5	59.5
212	"	14.1	3.4	3.5	62.1
145	At166/Cmn/ CI13449	14.3	3.3	3.3	62.8
68	CI13449/Centurk	13.8	3.3	3.3	66.3
4	CI13449/ /At166/Cmn	13.5	3.2	3.2	67.3
11	CI13449/3/At166/Cmn/ /Wrr	13.3	3.2	3.2	76.0
Check varieties:					
Lancota		15.1	2.8	2.9	60.4
CI13449		13.3	3.3	3.3	71.6
Centurk		14.1	3.1	3.1	56.5

Results of the first HP-HL nursery demonstrate that there is much genetic variability for grain protein content among the wheats tested. High protein frequently is associated with depressed yield of grain. Also, increases in the grain protein content of wheat normally are associated with depression of lysine per unit protein. The negative curvilinear relationship existing between the two traits is most pronounced in the 11-15% protein range. Several lines were identified in which high protein was combined with elevated lysine and high yield potential based on performance in an irrigated replicated nursery at Yuma, Arizona. These should be useful to breeders.

The known genetic variation for lysine is only of modest magnitude, but is sufficient to overcome the normal depression of lysine with increasing protein values. By combining the known genetic variability for lysine of $\pm$ 0.5 percentage points with the $\pm$ 5.0 percentage points for grain protein, it should be possible to develop productive varieties with much elevated grain protein levels and with normal to above-normal lysine contents.

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
1	16.7	177	2.9	88	3.1	89	4
2	16.6	182	2.7	209	3.0	147	4
3	15.5	241	3.2	9	3.4	9	3
4	16.2	210	3.0	36	3.2	36	4
5	16.4	195	3.0	36	3.2	36	4
6	16.3	203	3.0	36	3.2	36	4
7	17.3	129	2.9	88	3.1	89	4
8	16.5	188	2.9	88	3.1	89	3
9	16.3	203	2.9	88	3.1	89	4
10	17.1	148	2.9	88	3.1	89	4
11	16.2	210	3.0	36	3.2	36	3
12	17.2	138	2.8	145	3.1	89	4
13	16.1	217	2.9	88	3.1	89	4
14	16.8	169	2.9	88	3.1	89	4
15	16.6	182	3.1	18	3.3	18	4
16	15.6	238	3.0	36	3.2	36	4
17	16.4	195	3.0	36	3.2	36	4
18	15.8	230	2.8	145	3.0	147	4
19	16.5	188	2.9	88	3.1	89	4
20	15.8	230	2.8	145	3.0	147	4
21	14.9	252	2.8	145	3.0	147	4
22	15.5	241	2.8	145	3.0	147	4
23	15.4	243	2.9	88	3.1	89	4
24	16.7	177	2.7	209	2.9	213	4
25	16.3	203	3.1	18	3.3	18	4
26	15.3	245	2.8	145	2.9	213	4
27	18.0	83	2.7	209	2.9	213	4
28	18.7	57	2.7	209	2.9	213	4
29	15.7	234	2.9	88	3.1	89	4
30	17.4	120	2.9	88	3.1	89	4
31	15.3	245	3.0	36	3.2	36	4
32	16.4	195	3.0	36	3.2	36	4
33	26.5	188	3.0	36	3.2	36	4
34	16.3	203	2.9	88	3.1	89	4
35	16.1	217	3.0	36	3.2	36	4
36	15.6	238	2.9	88	3.1	89	4
37	15.0	250	3.0	36	3.1	89	4
38	17.9	88	2.7	209	3.0	147	4
39	16.8	169	2.8	145	3.0	147	4
40	18.1	78	2.7	209	2.9	213	4
41	19.3	40	2.6	247	2.8	247	4
42	14.4	257	2.9	88	3.0	147	5
43	16.7	177	2.8	145	3.0	147	4
44	17.3	129	2.8	145	3.0	147	4
45	17.5	114	2.8	145	3.0	147	4
46	16.9	162	2.8	145	3.0	147	4
47	17.4	120	2.8	145	3.0	147	4
48	18.5	66	2.8	145	3.0	147	4
49	17.1	148	2.8	145	3.0	147	4
50	18.8	53	2.8	145	3.0	147	4

1/ 1 = excellent; 9 = very poor

2/ Entries 1, 81, 161, 241, are Centurk; 2, 82, 162, 242, are Lancota; 3, 83, 163, 243, are CI13449; 41, 121, 201, 278, are Atlas 66; 42, 122, 202, 279, are CR8156; 43, 123, 203, are Bezostaya 1.

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
51	17.1	148	3.0	36	3.2	36	4
52	17.7	105	2.7	209	2.9	213	4
53	20.7	20	2.8	145	3.0	147	4
54	16.5	188	3.0	36	3.2	36	4
55	16.3	203	3.1	18	3.3	18	4
56	16.7	177	2.9	88	3.1	89	4
57	16.1	217	2.9	88	3.1	89	4
58	16.1	217	3.0	36	3.2	36	4
59	16.8	169	2.9	88	3.2	36	4
60	16.7	177	2.9	188	3.1	89	4
61	16.9	162	3.0	136	3.2	36	4
62	16.1	217	3.1	18	3.3	18	4
63	17.1	148	2.8	145	3.0	147	3
64	17.6	110	2.7	209	3.0	147	4
65	17.1	148	2.9	88	3.1	89	4
66	16.0	222	3.0	36	3.2	36	4
67	--	--	--	--	--	--	-
68	15.7	234	2.9	88	3.1	89	4
69	15.7	234	3.0	36	3.2	36	4
70	17.1	148	2.8	145	3.0	147	4
71	16.2	210	3.0	36	3.2	36	5
72	18.1	78	2.9	88	3.2	36	4
73	16.3	203	3.0	36	3.2	36	4
74	20.0	31	2.8	145	3.0	147	4
75	19.1	45	2.9	88	3.1	89	4
76	17.0	157	3.2	9	3.4	9	4
77	18.0	83	2.9	88	3.2	36	4
78	17.4	120	3.1	18	3.3	18	4
79	20.3	25	2.8	145	3.0	147	4
80	--	--	--	--	--	--	-
81	15.9	225	2.8	145	3.0	147	4
82	16.2	210	2.8	145	3.0	147	4
83	16.3	203	3.1	18	3.3	18	4
84	17.9	88	3.0	36	3.2	36	4
85	17.7	105	3.0	36	3.2	36	4
86	22.0	8	2.7	209	2.9	213	4
87	20.3	25	2.6	247	2.8	247	4
88	17.7	105	2.8	145	3.0	147	4
89	--	--	--	--	--	--	-
90	--	--	--	--	--	--	-
91	--	--	--	--	--	--	-
92	17.1	148	2.9	88	3.1	89	4
93	16.8	169	2.9	88	3.1	89	4
94	16.5	188	3.1	18	3.3	18	4
95	14.8	254	3.0	36	3.1	89	4
96	15.0	250	2.8	145	3.0	147	4
97	17.8	97	2.7	209	2.9	213	5
98	--	--	--	--	--	--	-
99	16.8	169	2.6	247	2.8	247	4
100	19.2	41	2.9	88	3.1	89	4

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
101	16.8	169	2.7	209	2.9	213	4
102	18.6	62	2.8	145	3.0	147	4
103	17.7	105	2.8	145	3.0	147	4
104	17.8	97	2.7	209	2.9	213	4
105	17.3	129	2.8	145	3.0	147	4
106	17.2	138	2.6	247	2.8	247	4
107	17.3	129	2.9	88	3.1	89	3
108	16.3	203	3.0	36	3.2	36	3
109	18.3	70	2.8	145	2.9	213	3
110	17.3	129	2.7	209	2.9	213	3
111	16.9	162	2.8	145	3.1	89	3
112	18.5	66	2.7	209	3.0	147	4
113	17.8	97	2.9	88	3.1	89	4
114	17.5	114	3.0	36	3.2	36	4
115	17.3	129	2.8	145	3.0	147	4
116	17.2	138	3.0	36	3.2	36	4
117	20.4	24	2.7	209	2.9	213	5
118	19.0	48	2.9	88	3.1	89	4
119	18.9	50	2.7	209	2.9	213	3
120	--	--	--	--	--	--	-
121	19.0	48	2.7	209	2.9	213	4
122	14.7	255	3.0	36	3.1	89	4
123	17.8	97	2.7	209	3.0	147	4
124	18.7	57	2.8	145	3.0	147	4
125	16.7	177	2.8	145	3.0	147	4
126	17.8	97	2.9	88	3.1	89	4
127	17.4	120	2.7	209	2.9	213	4
128	17.5	114	2.7	209	3.0	147	4
129	--	--	--	--	--	--	-
130	18.8	53	2.6	247	2.8	247	4
131	18.0	83	3.1	18	3.4	9	4
132	18.1	78	3.0	36	3.3	18	4
133	--	--	--	--	--	--	-
134	17.1	148	2.9	88	3.2	36	4
135	17.9	88	3.0	36	3.3	18	4
136	16.9	162	2.8	145	3.0	147	4
137	17.2	138	2.9	88	3.1	89	4
138	16.2	210	3.1	18	3.2	36	3
139	18.2	73	2.9	88	3.2	36	4
140	16.8	169	2.9	88	3.1	89	4
141	17.6	110	2.8	145	3.0	147	4
142	18.6	62	2.7	209	2.9	213	3
143	17.9	88	2.7	209	3.0	147	4
144	18.8	53	2.9	88	3.1	89	4
145	17.3	129	3.3	1	3.5	1	5
146	17.8	97	2.8	145	3.0	147	4
147	18.2	73	3.0	36	3.2	36	4
148	17.0	157	2.7	209	2.9	213	4
149	17.0	157	3.0	36	3.2	36	4
150	18.6	62	2.8	145	3.1	89	4

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
151	14.5	256	2.9	88	3.1	89	4
152	17.1	148	2.8	145	3.0	147	4
153	17.1	148	2.8	145	3.0	147	4
154	17.0	157	2.7	209	2.9	213	4
155	16.4	195	2.8	145	3.1	89	5
156	15.6	238	2.7	209	2.9	213	4
157	17.2	138	2.7	209	3.0	147	4
158	17.8	97	2.9	88	3.1	89	4
159	18.3	70	2.8	145	3.0	147	4
160	--	--	--	--	--	--	-
161	16.1	217	2.7	209	2.9	213	4
162	17.1	148	2.6	247	2.8	247	4
163	17.4	120	3.0	36	3.2	36	3
164	17.7	105	2.9	88	3.1	89	4
165	18.6	62	2.8	145	3.0	147	4
166	21.9	9	2.8	145	3.0	147	5
167	--	--	--	--	--	--	-
168	24.0	2	2.8	145	3.0	147	5
169	22.3	6	2.9	88	3.1	89	5
170	19.2	41	3.0	36	3.2	36	5
171	22.4	5	3.1	18	3.3	18	5
172	19.7	38	2.9	88	3.1	89	4
173	18.7	57	2.8	145	3.0	147	5
174	18.8	53	3.0	36	3.2	36	5
175	19.9	34	3.2	9	3.4	9	5
176	--	--	--	--	--	--	-
177	--	--	--	--	--	--	-
178	18.1	78	2.8	145	3.0	147	5
179	17.7	105	2.9	88	3.1	89	5
180	20.6	22	2.9	88	3.1	89	5
181	21.7	12	2.8	145	2.9	213	5
182	21.5	13	2.8	145	3.0	147	5
183	19.8	36	3.0	36	3.2	36	5
184	24.1	1	2.7	209	2.9	213	5
185	22.3	6	2.7	209	2.9	213	5
186	19.1	45	2.9	88	3.1	89	5
187	19.1	45	3.0	36	3.2	36	5
188	14.4	257	3.0	36	3.1	89	4
189	17.1	148	3.1	18	3.3	18	4
190	14.9	252	3.1	18	3.2	36	4
191	16.3	203	3.2	9	3.4	9	5
192	15.5	241	3.1	18	3.2	36	5
193	18.3	70	3.0	36	3.2	36	5
194	17.9	88	3.0	36	3.2	36	4
195	19.1	45	3.0	36	3.2	36	4
196	18.8	53	2.9	88	3.1	89	4
197	--	--	--	--	--	--	-
198	--	--	--	--	--	--	-
199	--	--	--	--	--	--	-
200	18.1	78	3.0	36	3.2	36	4

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
201	19.9	34	2.8	145	3.0	147	4
202	15.2	247	2.6	247	2.8	247	4
203	16.5	188	2.6	247	2.8	247	4
204	17.9	88	3.0	36	3.3	18	4
205	17.3	129	3.2	9	3.4	9	3
206	16.5	188	3.3	1	3.5	1	3
207	16.6	182	3.0	36	3.2	36	3
208	17.5	114	3.1	18	3.3	18	5
209	16.5	188	3.3	1	3.5	1	4
210	18.2	73	3.2	9	3.4	9	4
211	16.8	169	3.3	1	3.5	1	4
212	18.1	78	3.3	1	3.5	1	4
213	17.4	120	3.3	1	3.5	1	4
214	17.8	97	3.2	9	3.4	9	5
215	18.2	73	3.1	18	3.3	18	4
216	16.2	210	2.9	88	3.1	89	4
217	20.9	18	2.9	88	3.1	89	4
218	19.9	34	2.9	88	3.1	89	5
219	--	--	--	--	--	--	-
220	20.2	27	2.7	209	2.9	213	4
221	22.5	4	2.7	209	2.9	213	4
222	21.4	14	2.8	145	3.0	147	4
223	--	--	--	--	--	--	-
224	19.8	36	3.1	18	3.3	18	5
225	20.1	29	2.9	88	3.1	89	5
226	21.8	11	2.8	145	3.0	147	5
227	21.2	15	2.9	88	3.1	89	5
228	22.9	3	2.6	247	2.8	247	4
229	20.1	29	2.8	145	3.0	147	4
230	20.6	22	2.7	209	2.9	213	4
231	18.5	66	2.9	88	3.1	89	4
232	19.5	39	2.8	145	3.0	147	4
233	20.1	29	3.0	36	3.2	36	4
234	21.1	16	2.8	145	3.0	147	4
235	21.9	9	2.8	145	2.9	213	5
236	20.7	20	3.0	36	3.2	36	4
237	21.0	17	2.7	209	2.9	213	5
238	20.8	19	2.9	88	3.1	89	5
239	20.0	31	3.0	36	3.2	36	4
240	18.6	62	2.9	88	3.1	89	4
241	17.1	148	2.8	145	3.0	147	4
242	17.8	97	2.7	209	2.9	213	4
243	15.9	225	3.1	18	3.2	36	3
244	15.8	230	3.3	1	3.5	1	4
245	17.3	129	3.2	9	3.4	9	4
246	17.5	114	3.1	18	3.3	18	4
247	17.3	129	3.0	36	3.2	36	3
248	18.7	57	3.0	36	3.2	36	4
249	17.9	88	3.3	1	3.5	1	3
250	17.6	110	3.0	36	3.2	36	4

Table 4. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Bordenave, Argentina in 1975. Concluded.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
251	16.6	182	3.0	36	3.2	36	4
252	17.4	120	3.0	36	3.3	18	3
253	--	--	--	--	--	--	-
254	--	--	--	--	--	--	-
255	16.9	162	2.8	145	3.0	147	4
256	17.2	138	2.9	88	3.1	89	4
257	17.2	138	2.9	88	3.1	89	4
258	13.9	260	3.2	9	3.3	18	4
259	15.9	225	3.0	36	3.2	36	5
260	15.1	249	3.0	36	3.2	36	4
261	17.3	129	2.8	145	3.0	147	3
262	17.8	97	2.6	247	2.8	247	3
263	17.8	97	2.7	209	2.9	213	3
264	18.4	68	2.6	247	2.8	247	3
265	15.9	225	2.8	145	3.0	147	4
266	16.1	217	2.6	247	2.8	247	3
267	16.4	195	2.9	88	3.1	89	4
268	15.9	225	2.9	88	3.1	89	3
269	16.1	217	2.8	145	3.0	147	3
270	16.8	169	2.8	145	3.0	147	3
271	16.4	195	2.8	145	3.0	147	3
272	15.8	230	2.7	209	2.9	213	3
273	15.7	234	2.8	145	3.0	147	3
274	16.7	177	2.7	209	2.9	213	3
275	15.9	225	2.6	247	2.8	247	3
276	15.2	247	2.8	145	3.0	147	3
277	15.3	245	2.8	145	3.0	147	3
278	19.1	45	2.7	209	2.9	213	4
279	14.3	259	2.9	88	3.0	147	5

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.21**	-.19**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	19.3	2.7	2.9
Bezostaya 1	17.0	2.7	2.9
Lancota	16.9	2.7	2.9
Centurk	16.5	2.8	3.0
CI13449	16.3	3.1	3.3
CR8156	14.7	2.8	3.0
Overall Means	16.7	2.8	3.0
$LSD_{.05}$ of the means	0.9	0.1	0.1
Coefficient of variation (%)	3.6	2.7	2.4

Table 5. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Passo Fundo, Brazil in 1975.

Entry no. 1/	Protein		Lysine/protein		Adjusted Lysine/protein	
	%	rank	%	rank	%	rank
12	18.0	57	2.9	43	3.1	43
13	18.2	53	2.9	43	3.1	43
23	19.7	43	2.9	43	3.1	43
26	19.0	49	2.9	43	3.1	43
27	23.8	25	3.4	2	3.6	4
29	18.0	58	2.8	56	3.0	55
30	19.3	48	2.8	56	3.0	55
31	19.6	44	2.8	56	3.0	55
32	17.8	62	3.1	13	3.3	17
33	18.2	54	3.1	13	3.3	17
34	17.0	63	3.1	13	3.3	17
35	18.0	59	3.1	13	3.3	17
36	17.9	61	3.0	27	3.2	32
37	18.1	56	2.9	43	3.2	32
41	18.9	50	2.7	64	2.9	64
42	18.0	60	3.0	27	3.2	32
55	18.6	51	3.1	13	3.3	17
57	18.5	52	3.4	2	3.6	4
58	19.5	46	3.2	8	3.4	10
59	20.6	39	3.1	13	3.3	17
60	21.7	35	3.2	8	3.4	10
61	24.6	20	3.4	2	3.5	8
63	22.1	34	3.0	27	3.2	32
66	21.4	37	2.9	43	3.1	43
67	15.6	65	3.4	2	3.6	4
68	18.2	55	3.1	13	3.4	10
69	22.4	32	3.0	27	3.2	32
106	22.7	29	2.7	64	2.9	64
108	17.0	64	2.9	43	3.1	43
110	20.3	40	3.0	27	3.2	32
121	19.6	45	2.9	43	3.1	43
122	19.4	47	3.0	27	3.2	32
126	22.7	30	3.0	27	3.1	43
127	20.3	41	2.8	56	3.0	55
129	23.4	26	2.9	43	3.1	43
130	20.7	38	2.8	56	3.0	55
155	20.3	42	2.8	56	3.0	55
184	28.4	6	3.0	27	3.3	17
187	24.5	21	3.0	27	3.2	32
189	23.1	27	3.3	7	3.5	8
225	31.5	1	3.0	27	3.7	3
229	27.4	10	3.1	13	3.3	17
231	29.3	4	3.2	8	3.6	4
234	29.9	3	3.4	2	3.9	1
235	28.4	7	3.1	13	3.4	10
236	27.6	9	3.6	1	3.8	2
255	30.6	2	2.9	43	3.4	10
258	22.3	33	3.1	13	3.3	17
261	24.3	24	3.0	27	3.2	32
262	26.2	13	3.1	13	3.3	17

1/ Entries 41, 121 are Atlas 66; 42, 122, 279 are CR8156.

Table 5. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Passo Fundo, Brazil in 1975.

Entry no. 1/	Protein		Lysine/protein		Adjusted Lysine/protein	
	%	rank	%	rank	%	rank
263	28.6	5	3.0	27	3.3	17
264	28.1	8	3.0	27	3.3	17
265	26.2	14	3.1	13	3.3	17
266	26.0	16	2.9	43	3.1	43
267	25.5	18	3.0	27	3.2	32
268	25.7	17	3.2	8	3.4	10
269	24.4	22	2.8	56	3.0	55
270	27.3	11	3.2	8	3.4	10
271	23.0	28	2.9	43	3.1	43
272	22.6	31	3.0	27	3.1	43
273	24.4	23	2.9	43	3.0	55
274	27.3	12	3.0	27	3.2	32
276	26.2	15	2.8	56	3.0	55
277	25.3	19	3.1	13	3.3	17
279	21.7	36	3.1	13	3.3	17

1/ Entries 41, 121 are Atlas 66; 42, 122, 279 are CR8156.

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
1	13.4	220	3.4	117	3.5	128	7
2	16.3	75	2.6	259	2.8	260	6
3	11.4	261	3.6	54	3.5	128	6
4	12.4	249	3.7	36	3.7	59	7
5	13.8	205	3.3	150	3.4	159	6
6	13.1	234	3.6	54	3.7	59	7
7	14.5	167	3.4	117	3.6	88	7
8	14.7	154	3.5	79	3.6	88	7
9	12.4	249	3.4	117	3.4	159	6
10	14.9	140	3.7	36	3.9	22	7
11	13.5	214	3.7	36	3.8	43	7
12	15.6	106	3.6	54	3.8	43	7
13	15.8	97	3.7	36	3.9	22	8
14	14.8	146	3.3	150	3.5	128	7
15	14.7	154	3.3	150	3.4	159	7
16	14.7	154	3.3	150	3.4	159	7
17	14.6	161	3.3	150	3.5	128	7
18	14.8	146	3.2	176	3.3	189	7
19	15.8	97	3.1	200	3.3	189	6
20	14.7	154	3.4	117	3.5	128	7
21	14.3	179	3.4	117	3.5	128	8
22	16.1	82	3.4	117	3.6	88	7
23	14.4	172	3.4	117	3.5	128	7
24	15.8	97	3.4	117	3.6	88	7
25	16.9	57	3.9	5	4.1	3	8
26	15.0	135	3.0	218	3.2	216	6
27	15.7	102	3.2	176	3.4	159	7
28	16.7	62	3.4	117	3.6	88	7
29	19.0	15	2.9	232	3.1	234	7
30	17.1	52	3.3	150	3.5	128	6
31	---	---	---	---	---	---	---
32	16.5	67	3.9	5	4.1	3	8
33	15.5	109	3.9	5	4.1	3	8
34	16.0	86	4.0	2	4.2	1	8
35	16.0	86	4.0	2	4.2	1	8
36	16.1	82	3.9	5	4.1	3	8
37	16.3	75	3.8	21	4.0	8	8
38	17.3	47	3.4	117	3.6	88	7
39	17.1	52	3.3	150	3.5	128	7
40	16.9	57	3.2	176	3.4	159	7
41	15.3	119	2.8	249	3.0	250	4
42	16.1	82	3.3	150	3.5	128	6
43	15.2	123	2.8	249	2.9	257	5
44	17.1	52	3.5	79	3.7	59	6
45	18.3	27	3.7	36	3.9	22	8
46	16.5	67	3.6	54	3.8	43	7
47	18.0	35	3.8	21	4.0	88	7
48	18.2	29	3.7	36	3.9	22	8
49	17.4	44	3.5	79	3.7	59	8
50	15.1	129	3.7	36	3.9	22	8

1/ 1 = excellent; 9 = very poor

2/ Entries 1, 81, 161, 241, are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201 are Atlas 66; 42, 122, 202 are CR8156; 43, 123, 203 are Bezostaya 1.

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
51	16.9	57	3.7	36	3.9	22	8
52	18.4	25	3.7	36	3.9	22	8
53	15.9	92	3.5	79	3.7	59	7
54	14.4	172	3.7	36	3.8	43	7
55	14.3	179	3.8	21	3.9	22	6
56	13.1	234	4.0	2	4.0	8	6
57	12.9	239	38	21	3.9	22	6
58	13.2	228	3.9	5	4.0	8	6
59	13.1	234	3.9	5	4.0	8	6
60	13.9	199	3.8	21	3.9	22	7
61	13.5	214	4.1	1	4.1	3	7
62	12.3	251	3.6	54	3.6	88	6
63	14.2	188	3.9	5	4.0	8	8
64	15.1	129	3.2	176	3.4	159	6
65	14.3	179	3.6	54	3.7	59	5
66	14.2	188	3.6	54	3.8	43	7
67	13.8	205	3.8	21	3.9	22	7
68	13.1	234	3.9	5	3.9	22	7
69	13.9	199	3.6	54	3.7	59	7
70	16.3	75	2.9	233	3.1	234	7
71	12.8	242	3.4	117	3.4	159	5
72	14.1	193	3.4	117	3.6	88	6
73	13.6	210	3.9	5	4.0	8	8
74	14.9	140	3.4	117	3.6	88	7
75	14.7	154	3.8	21	3.9	22	7
76	12.9	239	3.8	21	3.9	22	7
77	14.9	140	3.8	21	3.9	22	7
78	12.0	254	3.5	79	3.4	159	6
79	14.2	188	3.5	79	3.6	88	7
80	11.8	257	3.5	79	3.4	159	6
81	14.3	179	3.6	54	3.7	59	7
82	15.9	92	2.9	233	3.1	234	6
83	11.6	259	3.6	54	3.5	128	6
84	12.7	245	3.6	54	3.6	88	7
85	14.4	172	3.7	36	3.8	43	7
86	13.9	199	3.1	200	3.2	216	4
87	13.4	220	2.9	233	3.0	250	5
88	13.4	220	3.5	79	3.6	88	7
89	11.9	256	3.5	79	3.4	159	6
90	12.8	242	3.4	117	3.4	159	5
91	14.6	161	3.3	150	3.4	159	6
92	13.7	208	3.7	36	3.8	43	6
93	13.9	199	3.9	5	4.0	8	7
94	13.9	199	3.8	21	3.9	22	7
95	13.7	208	3.5	79	3.6	88	7
96	13.6	210	3.6	54	3.7	59	8
97	13.3	224	3.2	176	3.3	189	7
98	13.4	220	3.4	117	3.5	128	7
99	15.1	129	3.6	54	3.8	43	7
100	13.2	228	3.2	176	3.3	189	7

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
101	11.7	258	3.4	117	3.3	189	7
102	13.8	205	3.2	176	3.3	189	7
103	15.2	123	3.2	176	3.4	159	6
104	14.6	161	3.6	54	3.7	59	7
105	15.3	119	3.2	176	3.3	189	7
106	15.8	97	3.6	54	3.8	43	7
107	14.3	179	3.6	54	3.7	59	6
108	16.2	78	3.5	79	3.7	59	8
109	14.8	146	3.7	36	3.9	22	7
110	17.1	52	3.5	79	3.7	59	7
111	17.5	43	3.5	79	3.7	59	7
112	16.8	60	2.8	249	3.1	234	6
113	14.2	188	3.2	176	3.3	189	6
114	14.0	195	3.4	117	3.5	128	6
115	15.3	119	3.5	79	3.7	59	6
116	15.3	119	3.4	117	3.5	128	7
117	14.8	146	3.2	176	3.3	189	6
118	17.6	40	3.4	117	3.6	88	7
119	18.9	18	2.9	233	3.1	234	6
120	16.1	82	3.2	176	3.4	159	6
121	16.1	82	2.8	249	3.0	250	5
122	14.3	179	3.3	150	3.4	159	6
123	15.3	119	2.7	258	2.9	257	5
124	15.4	114	3.1	200	3.3	189	6
125	15.4	114	3.3	150	3.4	159	7
126	18.1	32	3.4	117	3.7	59	8
127	18.8	20	3.1	200	3.3	189	6
128	18.2	29	3.4	117	3.6	88	6
129	17.6	40	3.3	150	3.5	128	7
130	17.6	40	3.4	117	3.6	88	6
131	17.2	49	3.2	176	3.4	159	6
132	17.1	52	3.4	117	3.7	59	6
133	17.7	37	3.3	150	3.6	88	7
134	15.5	109	3.5	79	3.7	59	7
135	16.0	86	3.6	54	3.8	43	7
136	14.6	161	3.5	79	3.6	88	7
137	13.9	199	3.5	79	3.6	88	6
138	14.2	188	3.4	117	3.5	128	6
139	15.4	114	3.5	79	3.7	59	6
140	16.5	67	3.8	21	4.0	8	8
141	14.9	140	3.8	21	4.0	8	7
142	15.1	129	3.6	54	3.8	43	7
143	16.2	78	3.5	79	3.7	59	7
144	15.5	109	3.8	21	4.0	8	7
145	14.2	188	3.9	5	4.0	8	7
146	13.4	220	3.6	54	3.6	88	6
147	13.4	220	3.5	79	3.6	88	6
148	15.4	114	3.6	54	3.7	59	6
149	15.1	129	3.5	79	3.7	59	7
150	14.7	154	3.8	21	3.9	22	7

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975. Continued.

Entry no. 2/	Protein		lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
151	16.4	72	3.2	176	3.4	159	7
152	14.6	161	3.5	79	3.6	88	5
153	14.9	140	3.5	79	3.7	59	7
154	16.5	67	3.0	218	3.2	216	6
155	15.0	135	3.3	150	3.5	128	7
156	14.7	154	3.5	79	3.6	88	7
157	15.1	129	3.5	79	3.7	59	7
158	14.3	179	3.3	150	3.5	128	7
159	15.9	92	3.3	150	3.5	128	6
160	14.7	154	3.9	5	4.0	8	8
161	13.1	234	3.4	117	3.5	128	7
162	15.5	109	2.9	233	3.0	250	6
163	11.2	262	3.7	36	3.6	88	7
164	13.9	199	3.5	79	3.6	88	7
165	15.7	102	3.1	200	3.3	189	6
166	16.8	60	3.1	200	3.3	189	6
167	18.9	18	3.2	176	3.5	128	6
168	18.7	22	3.0	218	3.2	216	6
169	17.6	40	2.9	233	3.1	234	6
170	14.2	188	3.3	150	3.5	128	6
171	15.7	102	3.4	117	3.6	88	6
172	15.7	102	3.2	176	3.4	159	6
173	15.6	106	3.3	150	3.5	128	6
174	14.2	188	3.5	79	3.6	88	7
175	14.4	172	3.6	54	3.7	59	7
176	13.5	214	3.5	79	3.6	88	7
177	13.2	228	3.9	5	4.0	8	8
178	14.3	179	3.5	79	3.6	88	6
179	16.6	64	3.2	176	3.4	159	7
180	18.0	35	2.8	249	3.1	234	6
181	19.3	12	3.0	218	3.2	216	7
182	17.3	47	3.0	218	3.2	216	7
183	17.6	40	2.9	233	3.1	234	6
184	21.0	6	2.9	233	3.1	234	6
185	21.6	3	3.1	200	3.3	189	6
186	18.7	22	2.6	259	2.8	260	6
187	16.4	72	3.1	200	3.3	189	6
188	14.2	188	3.3	150	3.4	159	6
189	15.0	135	3.4	117	3.6	88	7
190	14.5	167	3.4	117	3.6	88	7
191	14.5	167	3.2	176	3.4	159	7
192	14.8	146	3.1	200	3.3	189	7
193	14.6	161	3.4	117	3.5	128	7
194	14.9	140	3.7	36	3.8	43	7
195	15.7	102	3.3	150	3.5	128	7
196	16.5	67	3.6	54	3.8	43	7
197	16.5	67	3.2	176	3.5	128	7
198	14.5	167	3.5	79	3.6	88	7
199	14.3	179	3.5	79	3.6	88	7
200	13.5	214	3.6	54	3.7	59	7

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
201	16.0	86	3.0	218	3.2	216	6
202	14.5	167	3.3	150	3.4	159	7
203	14.7	154	2.6	259	2.8	260	6
204	13.2	228	3.5	79	3.6	88	6
205	13.9	199	3.2	176	3.3	189	5
206	15.1	129	3.3	150	3.4	159	6
207	15.2	123	3.5	79	3.7	59	6
208	14.1	193	3.5	79	3.6	88	6
209	12.8	242	3.6	54	3.6	88	6
210	12.5	247	3.8	21	3.8	43	7
211	12.0	254	3.6	54	3.6	88	7
212	12.5	247	3.5	79	3.5	128	6
213	12.2	253	3.5	79	3.5	128	6
214	13.1	234	3.5	79	3.6	88	7
215	13.5	214	3.7	36	3.8	43	7
216	16.4	72	3.3	150	3.5	128	7
217	17.3	47	2.9	233	3.2	216	5
218	18.3	27	3.1	200	3.3	189	6
219	18.0	35	3.2	176	3.4	159	7
220	16.2	78	2.9	233	3.1	234	6
221	19.4	11	2.8	249	3.0	250	6
222	18.7	22	2.9	233	3.1	234	6
223	18.1	32	3.1	200	3.3	189	7
224	19.0	15	3.0	218	3.2	216	7
225	19.1	14	3.1	200	3.3	189	6
226	19.5	9	2.9	233	3.1	234	6
227	19.5	9	3.3	150	3.5	128	6
228	19.9	7	2.8	249	3.0	250	6
229	18.7	22	3.0	218	3.2	216	6
230	19.8	8	3.0	218	3.2	216	6
231	18.1	32	3.0	218	3.2	216	6
232	18.3	27	2.6	259	2.9	257	6
233	19.2	13	2.9	233	3.1	234	6
234	21.4	4	2.8	249	3.0	250	6
235	22.1	1	2.9	233	3.1	234	6
236	16.7	62	3.0	218	3.2	216	6
237	17.1	52	3.0	218	3.2	216	5
238	17.4	44	3.0	218	3.2	216	6
239	15.9	92	3.1	200	3.3	189	7
240	14.5	167	3.4	117	3.6	88	7
241	13.5	214	3.7	36	3.8	43	7
242	15.1	129	2.9	233	3.1	234	7
243	11.6	259	3.4	117	3.4	159	6
244	12.3	251	3.9	5	3.9	22	8
245	13.3	224	3.4	117	3.5	128	5
246	13.2	228	3.3	150	3.4	159	5
247	13.2	228	3.2	176	3.3	189	5
248	14.8	146	3.1	200	3.2	216	5
249	13.8	205	3.2	176	3.3	189	5
250	15.9	92	3.0	218	3.2	216	6

Table 6. Protein and lysine values together with seed grades for entries in the first high protein-high lysine observation nursery grown at Temuco, Chile in 1975. Concluded.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rate	
251	15.4	114	3.5	79	3.7	59	7
252	15.9	92	3.2	176	3.4	159	7
253	12.5	247	3.9	5	3.9	22	7
254	12.8	242	3.9	5	3.9	22	7
255	16.9	57	3.1	200	3.3	189	7
256	15.0	135	3.3	150	3.4	159	6
257	15.9	92	3.1	200	3.3	189	7
258	15.1	129	3.4	117	3.6	88	7
259	15.6	106	3.1	200	3.3	189	7
260	12.9	239	3.7	36	3.7	59	7
261	22.0	2	3.0	218	3.2	216	7
262	21.2	5	3.1	200	3.3	189	7
263	18.9	18	2.8	249	3.1	234	7

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.52**	-.36**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Lancota	15.9	2.8	3.0
Atlas 66	15.8	2.9	3.1
Bezostaya 1	15.1	2.7	2.9
CR8156	15.0	3.3	3.4
Centurk	13.6	3.5	3.6
CI13449	11.4	3.6	3.5
Overall means	14.5	3.1	3.2
$LSD_{.05}$ of the means	0.99	0.2	0.2
Coefficient of variation (%)	3.8	3.3	3.5

Table 7. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Alexandria, Egypt in 1975.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
1	10.4	238	3.5	5	3.2	65	5
2	11.5	227	3.1	71	3.0	164	4
3	10.5	237	3.5	5	3.3	30	7
4	10.8	236	3.2	31	3.1	117	5
5	12.0	218	3.3	15	3.2	65	5
6	12.0	218	3.2	31	3.2	65	5
7	11.1	233	3.4	9	3.3	30	5
9 3/	10.9	235	3.6	1	3.5	2	6
10	11.7	223	3.4	9	3.3	30	8
11	11.3	231	3.4	9	3.3	30	7
12	12.9	197	3.2	31	3.2	65	6
13	12.9	197	3.2	31	3.2	65	6
14	13.8	169	2.9	142	3.0	164	6
15	14.4	135	2.9	142	3.0	164	6
16	13.7	173	3.1	71	3.2	65	6
17	13.2	188	3.1	71	3.2	65	5
18	14.0	158	3.1	71	3.2	65	5
19	12.8	200	3.2	31	3.2	65	6
20	13.0	195	3.0	102	3.1	117	5
21	14.4	135	3.1	71	3.2	65	5
22	14.0	158	3.0	102	3.1	117	5
23	14.1	151	3.1	71	3.2	65	4
25	12.3	209	3.5	6	3.5	5	7
27	14.0	158	3.2	31	3.3	30	6
28	16.2	77	3.0	102	3.2	65	7
29	13.2	188	3.0	102	3.1	117	4
30	14.0	158	3.2	31	3.3	30	4
31	12.8	200	3.1	71	3.1	117	4
32	11.3	231	3.5	5	3.4	10	4
33	11.5	227	3.4	9	3.3	30	4
34	11.1	233	3.3	15	3.1	117	4
35	13.3	183	3.1	71	3.2	65	5
36	11.8	222	3.3	15	3.3	30	5
37	12.0	218	3.3	15	3.3	30	4
41	14.3	140	3.1	71	3.2	65	5
42	13.7	173	2.9	142	3.0	164	5
43	16.0	86	3.0	102	3.2	65	6
44	16.7	59	2.9	142	3.1	117	6
45	17.5	40	2.9	142	3.2	65	6
47	16.5	66	3.0	102	3.2	65	6
48	16.8	56	2.9	142	3.1	117	6
49	15.9	92	3.0	102	3.1	117	6
50	14.3	140	3.0	102	3.1	117	5
51	16.4	70	2.9	142	3.0	164	6
52	17.3	45	2.8	179	3.0	164	5
53	16.6	62	2.8	179	3.1	117	5
54	14.1	151	3.3	15	3.5	2	5

1/ 1 = excellent
9 = very poor

2/ Entries 1, 81, 161, 241, are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 279 are CR8156; 43, 123 are Bezostaya 1.

3/ Missing entries were not harvested.

Table 7. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Alexandria, Egypt in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
55	13.1	192	3.2	31	3.2	65	5
56	11.5	227	3.6	1	3.5	2	5
57	13.1	192	2.9	142	2.9	200	4
58	13.8	169	3.2	31	3.3	30	5
59	14.2	145	3.1	71	3.2	65	5
60	13.0	195	3.3	15	3.4	10	5
61	13.8	169	3.3	15	3.4	10	5
62	12.5	207	3.2	31	3.3	30	5
63	13.4	178	3.2	31	3.3	30	5
64	14.4	135	3.1	71	3.3	30	7
65	13.3	183	3.3	15	3.3	30	6
66	12.5	207	3.2	31	3.2	65	5
67	14.5	129	2.9	142	3.0	164	6
68	14.2	145	3.2	31	3.4	10	6
69	12.6	205	3.3	15	3.3	30	6
70	14.7	123	2.7	208	2.9	200	6
71	13.4	178	3.1	71	3.2	65	6
72	16.1	81	3.1	71	3.3	30	7
73	11.4	230	3.2	31	3.1	117	8
74	17.0	52	2.9	142	3.1	117	5
75	14.6	125	3.0	102	3.2	65	8
76	16.8	56	3.0	102	3.2	65	8
77	16.3	74	2.9	142	3.1	117	6
78	15.7	97	3.1	71	3.2	65	7
79	15.5	100	2.9	142	3.1	117	7
80	13.8	169	3.3	15	3.4	10	7
81	12.3	209	3.4	9	3.4	10	6
82	12.0	218	3.2	31	3.1	117	4
83	14.9	119	3.1	71	3.2	65	7
84	17.2	48	2.8	179	3.0	164	6
86	15.9	92	2.9	142	3.1	117	6
87	15.1	114	2.9	142	3.1	117	6
88	13.2	188	3.2	31	3.3	30	6
90	13.2	188	3.1	71	3.2	65	6
91	14.0	158	3.0	102	3.1	117	5
92	12.1	213	3.2	31	3.1	117	5
93	13.5	175	2.8	179	2.9	200	5
94	14.0	158	3.1	71	3.2	65	6
95	12.7	203	3.2	31	3.2	65	6
96	12.6	205	3.0	102	3.0	164	6
97	13.9	165	3.0	102	3.1	117	6
98	13.4	178	2.9	142	2.9	200	6
99	12.1	213	3.2	31	3.2	65	6
100	14.1	151	3.0	102	3.2	65	5
102	12.1	213	3.1	71	3.1	117	5
103	11.5	227	3.2	31	3.1	117	5
104	11.5	227	3.1	71	3.0	164	3
106	13.4	178	2.8	179	2.9	200	3
107	13.9	165	2.8	179	2.9	200	3
108	12.1	213	3.0	102	3.0	164	3

Table 7. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Alexandria, Egypt in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
109	11.7	223	3.1	71	3.1	117	4
110	12.8	200	3.0	102	3.0	164	3
111	16.1	81	2.7	208	2.9	200	4
113	12.8	200	3.2	31	3.2	65	3
114	13.2	188	3.0	102	3.1	117	3
115	16.0	86	2.8	179	3.0	164	3
116	13.4	178	3.0	102	3.1	117	4
117	15.1	114	2.9	142	3.1	117	4
118	16.2	77	2.8	179	3.0	164	3
119	15.2	111	2.9	142	3.1	117	3
120	15.0	117	2.9	142	3.1	117	4
121	13.0	195	3.0	102	3.1	117	3
122	13.2	188	2.9	142	3.0	164	5
123	16.3	74	2.9	142	3.1	117	5
124	17.7	37	2.6	225	2.8	222	5
125	13.8	169	2.8	179	2.9	200	4
126	16.6	62	2.8	179	3.0	164	3
127	14.5	129	2.8	179	3.0	164	2
128	15.3	107	2.8	179	3.0	164	2
129	14.9	119	2.8	179	3.0	164	4
130	16.0	86	2.7	208	2.9	200	5
131	17.0	52	2.6	225	2.8	222	7
132	15.2	111	3.0	102	3.2	65	7
134	18.7	24	2.6	225	2.8	222	7
135	23.4	1	2.3	237	2.5	237	7
136	14.0	158	3.1	71	3.2	65	7
138	14.7	123	2.9	142	3.1	117	6
140	14.2	145	3.0	102	3.1	117	7
141	14.7	123	3.0	102	3.1	117	7
142	14.0	158	3.0	102	3.1	117	4
143	14.2	145	3.1	71	3.2	65	5
145	13.3	183	3.2	31	3.3	30	6
146	15.5	100	3.0	102	3.2	65	6
147	17.0	52	2.7	208	2.9	200	5
148	15.1	114	3.0	102	3.2	65	7
149	17.3	45	2.8	179	3.0	164	5
150	14.6	125	3.0	102	3.1	117	5
151	14.5	129	2.8	179	3.0	164	4
152	13.3	183	3.0	102	3.1	117	3
153	14.0	158	2.9	142	3.0	164	5
154	15.8	95	2.5	235	2.7	235	5
155	15.4	103	2.7	208	2.8	222	5
156	14.5	129	2.6	225	2.8	222	4
159	16.3	74	2.8	179	3.0	164	6
160	18.0	34	2.6	225	2.8	222	8
161	14.5	129	2.8	179	2.9	200	5
162	15.1	114	2.7	208	2.8	222	5
163	16.4	70	3.1	71	3.3	30	8
165	15.3	107	2.9	142	3.1	117	5
166	18.9	22	2.7	208	2.9	200	7

Table 7. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Alexandria, Egypt in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9 1/
	%	rank	%	rank	%	rank	
167	19.5	19	3.0	102	3.2	65	7
168	21.6	5	2.7	208	2.9	200	7
169	21.3	7	2.8	179	3.0	164	9
170	16.5	66	3.2	31	3.4	10	9
171	19.5	19	3.2	31	3.4	10	9
172	18.5	27	3.0	102	3.2	65	9
173	16.6	62	3.2	31	3.4	10	7
174	16.8	56	3.1	71	3.3	30	8
176	17.2	48	3.1	71	3.3	30	9
177	15.3	107	3.2	31	3.3	30	9
178	16.4	70	2.9	142	3.1	117	8
179	13.8	169	2.8	179	2.9	200	3
180	14.3	140	2.9	142	3.0	164	5
182	21.8	3	2.7	208	2.8	222	7
183	17.4	43	2.9	142	3.2	65	7
184	19.7	16	2.7	208	2.9	200	5
185	19.9	14	2.7	208	2.9	200	6
186	17.1	50	3.0	102	3.2	65	7
187	18.4	29	3.0	102	3.2	65	8
188	14.4	135	3.1	71	3.3	30	7
189	14.3	140	3.2	31	3.3	30	7
190	13.4	178	3.2	31	3.2	65	8
191	14.8	121	3.1	71	3.3	30	8
192	16.1	81	2.8	179	3.0	164	8
193	14.4	135	3.0	102	3.1	117	8
194	15.3	107	3.2	31	3.4	10	9
195	16.5	66	2.9	142	3.1	117	8
196	17.2	48	3.2	31	3.4	10	6
198	14.1	151	3.2	31	3.3	30	8
199	14.9	119	3.2	31	3.4	10	8
200	12.7	203	3.3	15	3.3	30	9
201	15.6	98	2.9	142	3.0	164	6
205	15.9	92	3.3	15	3.5	2	5
206	15.5	100	3.2	31	3.4	10	9
207	15.3	107	3.2	31	3.4	10	9
208	16.0	86	3.3	15	3.5	2	9
209	12.1	213	3.6	1	3.6	1	6
210	14.2	145	3.3	15	3.4	10	7
211	12.0	218	3.4	9	3.4	10	7
212	12.0	218	3.6	1	3.5	2	7
216	14.2	145	3.2	31	3.3	30	6
217	19.6	18	2.8	179	3.0	164	6
218	17.5	40	3.0	102	3.3	30	6
219	16.0	86	3.0	102	3.2	65	6
220	18.5	27	2.9	142	3.2	65	6
221	21.3	7	2.7	208	2.9	200	6
222	18.5	27	2.8	179	3.0	164	5
224	20.1	12	2.9	142	3.1	117	7
225	19.1	21	2.9	142	3.2	65	7
226	19.8	15	2.9	142	3.1	117	7

Table 7. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Alexandria, Egypt in 1975. Concluded.

Entry no.[2/]	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade 1-9[1/]
	%	rank	%	rank	%	rank	
227	20.5	11	3.0	102	3.2	65	7
228	21.7	4	2.7	208	2.9	200	4
229	20.8	10	2.8	179	3.0	164	7
230	17.8	35	2.8	179	3.1	117	7
231	19.7	16	2.9	142	3.1	117	5
232	20.0	13	2.8	179	3.0	164	7
233	17.7	37	2.9	142	3.1	117	7
234	22.1	2	2.7	208	2.9	200	5
235	21.4	6	2.7	208	2.9	200	4
236	21.2	9	2.6	225	2.8	222	5
238	18.7	24	3.1	71	3.3	30	6
239	18.3	31	3.1	71	3.3	30	9
240	18.4	29	2.9	142	3.2	65	7
241	13.9	165	2.9	142	3.0	163	3
242	16.2	77	2.6	225	2.7	235	4
243	14.4	135	3.2	31	3.3	30	7
244	14.0	158	3.2	31	3.4	10	5
245	15.8	95	3.2	31	3.4	10	5
247	17.0	52	3.2	31	3.4	10	6
248	16.5	66	3.0	102	3.2	65	5
249	17.8	35	3.0	102	3.2	65	5
250	16.0	86	3.1	71	3.3	30	5
251	18.8	23	3.0	102	3.2	65	7
252	18.2	33	2.9	142	3.1	117	7
254	17.5	40	3.3	15	3.5	2	7
255	16.4	70	3.0	102	3.2	65	5
256	15.9	92	3.1	71	3.3	30	5
257	14.5	129	3.3	15	3.5	2	6
258	15.3	107	3.2	31	3.4	10	8
259	16.0	86	3.0	102	3.3	30	8
261	18.3	31	2.6	225	2.8	222	2
262	15.5	100	2.8	179	3.0	164	3
263	15.9	92	2.8	179	3.0	164	4
264	16.2	77	2.8	179	3.0	164	4
265	17.5	40	2.5	235	2.8	222	3
266	16.7	59	2.6	225	2.8	222	2
268	17.3	45	2.6	225	2.8	222	4
269	26.8	56	2.7	208	2.9	200	2
278	16.5	66	2.8	179	3.0	164	3
279	15.3	107	2.7	208	2.9	200	1

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.63**	-.35**

** Significant at the .01 level

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	14.9	2.9	3.1
CR8156	14.1	2.9	3.0
CI13449	14.1	3.2	3.3
Lancota	13.7	2.9	2.9
Centurk	12.8	3.1	3.1
Overall means	13.9	3.0	3.1
$LSD_{.05}$ of the means	1.9	0.2	0.2
Coefficient of variation	8.7	5.2	3.6

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	16.0	165	2.9	127	3.1	118
2	16.3	136	2.9	127	3.1	118
3	17.0	84	2.8	187	3.0	180
4	16.3	136	3.0	80	3.2	72
5	15.5	200	2.9	127	3.1	118
6	16.3	136	3.2	30	3.4	28
7	15.0	231	3.2	30	3.4	28
8	17.2	70	3.0	80	3.2	72
9	14.1	270	3.1	51	3.2	72
10	15.8	179	3.1	51	3.2	72
11	14.2	264	3.1	51	3.2	72
12	16.9	90	2.8	187	3.0	180
13	16.0	165	2.9	127	3.1	118
14	15.3	215	2.9	127	3.0	180
15	14.2	264	2.9	127	3.0	180
16	14.8	244	3.0	80	3.1	118
17	14.8	244	2.9	127	3.0	180
18	15.3	215	2.9	127	3.1	118
19	17.3	63	2.7	236	2.9	240
20	16.2	149	2.8	187	3.0	180
21	15.4	211	2.8	187	2.9	240
22	24.7	248	2.9	127	3.0	180
23	15.2	219	2.9	127	3.1	118
24	17.8	46	2.7	236	2.9	240
25	16.2	149	3.0	80	3.2	72
26	17.0	84	2.6	267	2.8	268
27	19.1	18	2.5	279	2.7	279
28	16.7	103	2.8	187	3.0	180
29	15.7	183	2.8	187	3.0	180
30	16.4	126	2.7	236	3.0	180
31	16.4	126	2.7	236	3.0	180
32	16.1	156	2.9	127	3.1	118
33	15.5	200	2.9	127	3.1	118
34	16.2	149	2.9	127	3.1	118
35	15.8	179	3.0	80	3.1	118
36	16.2	149	3.0	80	3.2	72
37	15.1	224	2.9	127	3.1	118
38	17.1	77	2.6	267	2.8	268
39	17.2	70	2.6	267	2.8	268
40	18.1	36	2.6	267	2.8	268
41	17.9	42	2.5	279	2.7	279
42	13.2	279	2.9	127	3.0	180
43	15.1	224	2.7	236	2.9	240
44	16.3	136	2.8	187	3.0	180
45	15.7	183	2.9	127	3.0	180
46	16.3	136	3.0	80	3.2	72
47	15.1	224	2.8	187	3.0	180
48	16.0	165	2.6	267	2.8	268
49	16.5	119	2.9	127	3.1	118
50	16.1	156	2.7	236	2.9	240

1/ Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
51	16.6	112	2.9	127	3.1	118
52	16.4	126	2.9	127	3.1	118
53	17.5	57	2.8	187	3.1	118
54	15.5	200	2.9	127	3.1	118
55	15.6	187	3.0	80	3.1	118
56	14.3	260	3.2	30	3.4	28
57	14.1	270	3.1	51	3.3	47
58	14.1	270	3.3	16	3.4	28
59	14.4	257	3.1	51	3.2	72
60	14.5	253	3.1	51	3.3	47
61	13.9	275	3.1	51	3.2	72
62	14.9	238	3.0	80	3.1	118
63	15.3	215	3.0	80	3.2	72
64	16.2	149	2.9	127	3.1	118
65	16.0	165	2.9	127	3.1	118
66	16.2	149	2.9	127	3.1	118
67	15.3	215	2.8	187	3.0	180
68	14.2	264	3.2	30	3.3	47
69	15.3	215	3.0	80	3.1	118
70	16.6	112	2.7	236	2.9	240
71	13.6	276	3.1	51	3.2	72
72	16.3	136	3.0	80	3.2	72
73	14.1	270	3.1	51	3.2	72
74	17.3	63	2.8	187	3.0	180
75	16.3	136	2.8	187	3.0	180
76	15.5	200	2.9	127	3.1	118
77	15.5	200	2.9	127	3.2	72
78	18.2	32	2.8	187	3.0	180
79	18.7	24	2.8	187	3.0	180
80	14.2	264	3.1	51	3.2	72
81	15.8	179	2.9	127	3.1	118
82	16.7	103	2.6	267	2.8	268
83	16.0	165	3.1	51	3.3	47
84	15.5	200	3.0	80	3.2	72
85	15.0	231	3.0	80	3.1	118
86	15.1	224	2.9	127	3.1	118
87	16.3	136	2.8	187	3.0	180
88	15.8	179	2.9	127	3.1	118
89	15.5	200	2.9	127	3.1	118
90	14.2	264	3.0	80	3.1	118
91	15.5	200	2.9	127	3.1	118
92	14.9	238	3.0	80	3.2	72
93	14.2	264	3.1	51	3.2	72
94	15.5	200	2.9	127	3.1	118
95	14.5	253	3.0	80	3.2	72
96	15.8	179	2.8	187	3.0	180
97	15.5	200	2.9	127	3.0	180
98	15.3	215	3.0	80	3.2	72
99	16.6	112	2.7	236	2.9	240
100	14.2	264	2.9	127	3.0	180

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
101	14.5	253	2.9	127	3.0	180
102	17.8	46	2.7	236	2.9	240
103	17.2	70	2.8	187	3.0	180
104	16.9	90	2.8	187	3.0	180
105	16.8	95	2.8	187	3.0	180
106	16.7	103	2.8	187	3.0	180
107	16.2	149	2.7	236	2.9	240
108	17.2	70	2.7	236	3.0	180
109	16.8	95	2.8	187	3.0	180
110	17.5	57	2.6	267	2.8	268
111	17.2	70	2.7	236	2.9	240
112	17.6	53	2.7	236	2.9	240
113	17.0	84	3.0	80	3.2	72
114	16.5	119	3.0	80	3.2	72
115	15.9	174	2.9	127	3.1	118
116	16.2	149	2.9	127	3.1	118
117	17.7	49	2.8	187	3.0	180
118	17.0	84	2.9	127	3.1	118
119	17.3	63	2.8	187	3.0	180
120	17.0	84	3.0	80	3.2	72
121	15.2	219	3.1	51	3.3	47
122	14.4	257	3.0	80	3.1	118
123	14.9	238	2.8	187	3.0	180
124	17.0	84	2.9	127	3.1	118
125	18.1	36	2.6	267	2.9	240
126	18.2	32	2.7	236	2.9	240
127	17.2	70	2.7	236	3.0	180
128	18.9	20	2.7	236	2.9	240
129	17.1	77	2.8	187	3.0	180
130	17.9	42	2.8	187	3.0	180
131	18.0	39	2.9	127	3.1	118
132	16.8	95	3.0	80	3.2	72
133	17.6	53	2.9	127	3.1	118
134	16.5	119	3.0	80	3.2	72
135	17.3	63	2.8	187	3.1	118
136	16.6	112	2.9	127	3.1	118
137	16.1	156	3.1	51	3.3	47
138	14.9	238	3.0	80	3.2	72
139	14.9	238	3.1	51	3.2	72
140	15.1	224	3.0	80	3.1	118
141	15.0	231	3.2	30	3.3	47
142	15.5	200	3.0	80	3.1	118
143	15.9	174	3.0	80	3.2	72
144	16.7	103	3.0	80	3.2	72
145	15.9	174	3.1	51	3.3	47
146	15.5	200	3.0	80	3.2	72
147	15.0	231	3.0	80	3.2	72
148	15.3	215	3.0	80	3.2	72
149	14.9	238	3.0	80	3.2	72
150	14.9	238	3.1	51	3.3	47

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
151	16.6	112	2.9	127	3.1	118
152	15.6	187	3.0	80	3.2	72
153	14.8	244	3.1	51	3.3	47
154	16.5	119	2.9	127	3.1	118
155	15.5	200	2.8	187	3.0	180
156	15.6	187	2.8	187	3.0	180
157	15.0	231	3.0	80	3.1	118
158	16.3	136	3.0	80	3.2	72
159	16.7	102	2.9	127	3.1	118
160	15.5	200	2.9	127	3.1	118
161	15.9	174	2.8	187	3.0	180
162	17.2	70	2.6	267	2.8	268
163	12.9	280	3.4	3	3.5	10
164	16.7	103	2.8	187	3.1	118
165	17.3	63	2.8	187	3.0	180
166	16.7	103	3.0	80	3.2	72
167	19.5	12	3.0	80	3.2	72
168	19.8	10	2.7	236	3.0	180
169	19.1	18	2.7	236	2.9	240
170	16.0	165	3.0	80	3.2	72
171	18.8	22	3.3	16	3.5	10
172	17.0	84	3.2	30	3.4	28
173	16.9	90	3.1	51	3.3	47
174	15.7	183	3.4	3	3.5	10
175	16.0	165	3.4	3	3.6	3
176	15.6	187	3.5	1	3.7	1
177	16.0	165	3.3	16	3.5	10
178	14.1	270	3.3	16	3.4	28
179	16.5	119	3.1	51	3.3	47
180	17.4	59	2.9	127	3.2	72
181	19.6	11	2.9	127	3.1	118
182	18.8	22	2.9	127	3.1	118
183	18.6	26	3.0	80	3.3	47
184	19.4	14	2.7	236	2.9	240
185	20.6	5	2.7	236	2.9	240
186	18.0	39	3.0	80	3.3	47
187	16.3	136	3.2	30	3.4	28
188	14.1	270	3.2	30	3.4	28
189	14.9	238	3.4	3	3.6	3
190	14.0	274	3.2	30	3.4	28
191	14.6	250	3.2	30	3.3	47
192	14.9	238	3.2	30	3.4	28
193	16.0	165	3.2	30	3.4	28
194	15.1	224	3.2	30	3.4	28
195	16.9	90	3.2	30	3.4	28
196	17.8	46	3.2	30	3.4	28
197	16.5	119	3.3	16	3.5	10
198	16.3	136	3.1	51	3.3	47
199	16.6	112	3.3	16	3.5	10
200	16.0	165	3.2	30	3.4	28

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
201	17.9	42	2.8	187	3.0	180
202	13.6	276	3.0	80	3.0	180
203	14.4	257	2.8	187	2.9	240
204	16.3	136	3.4	3	3.6	3
205	16.3	136	3.4	3	3.6	3
206	16.8	95	2.9	127	3.2	72
207	17.1	77	3.1	51	3.3	47
208	16.2	149	3.2	30	3.3	47
209	16.1	156	3.4	3	3.6	3
210	16.8	95	3.3	16	3.5	10
211	14.7	248	3.4	3	3.6	3
212	16.5	119	3.3	16	3.5	10
213	14.8	244	3.4	3	3.5	10
214	16.0	165	3.5	1	3.7	1
215	16.0	165	3.3	16	3.5	10
216	14.4	257	3.2	30	3.3	47
217	18.3	28	2.9	127	3.1	118
218	18.2	32	2.8	187	3.0	180
219	16.7	103	3.0	80	3.2	72
220	17.1	77	3.0	80	3.2	72
221	18.1	36	3.0	80	3.2	72
222	18.3	28	2.8	187	3.0	180
223	20.0	7	2.9	127	3.1	118
224	19.2	16	2.9	127	3.1	118
225	17.6	53	3.1	51	3.3	47
226	20.4	6	2.9	127	3.1	118
227	19.4	14	3.1	51	3.4	28
228	19.5	12	2.9	127	3.1	118
229	19.9	8	2.8	187	3.0	180
230	18.2	32	2.7	236	2.9	240
231	17.7	49	3.1	51	3.3	47
232	19.1	18	2.8	187	3.0	180
233	21.0	4	2.8	187	3.0	180
234	23.8	1	2.8	187	2.9	240
235	22.4	2	2.8	187	3.0	180
236	21.6	3	2.9	127	3.1	118
237	18.9	20	3.0	80	3.2	72
238	19.9	8	3.1	51	3.3	47
239	16.6	112	3.2	30	3.4	28
240	17.1	77	3.2	30	3.4	28
241	15.5	200	2.8	287	3.0	180
242	16.7	103	2.7	236	2.9	240
243	14.7	248	3.4	3	3.5	10
244	15.5	200	3.3	16	3.5	10
245	15.6	187	3.3	16	3.5	10
246	15.5	200	3.4	3	3.5	10
247	15.5	200	3.3	16	3.5	10
248	16.4	126	3.1	51	3.3	47
249	15.5	200	3.4	3	3.5	10
250	15.6	187	3.1	51	3.3	47

Table 8. Protein and lysine values for the entries in the first high protein-high observation nursery grown at Martonvasar, Hungary in 1975. Concluded.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
251	16.7	103	3.3	16	3.5	10
252	16.3	136	3.3	16	3.5	10
253	16.0	165	3.4	3	3.6	3
254	17.4	59	3.2	30	3.4	28
255	15.5	200	2.9	127	3.1	118
256	17.1	77	2.9	127	3.1	118
257	17.8	46	2.7	236	2.9	240
258	14.5	253	2.9	127	3.1	118
259	15.1	224	3.1	51	3.3	47
260	15.1	224	2.9	127	3.1	118
261	18.2	32	2.7	236	2.9	240
262	17.6	53	2.7	236	2.9	240
263	16.4	126	2.8	187	3.0	180
264	16.9	90	2.7	236	2.9	240
265	18.7	24	2.6	267	2.8	268
266	18.1	36	2.6	267	2.8	268
267	17.1	77	2.7	236	2.9	240
268	16.3	136	2.8	187	3.0	180
269	17.3	63	2.7	236	2.9	240
270	16.5	119	2.8	187	3.0	180
271	16.2	149	2.8	187	3.0	180
272	17.6	53	2.8	187	3.0	180
273	16.8	95	2.6	267	2.8	268
274	17.8	46	2.7	236	2.9	240
275	16.2	149	2.8	187	3.0	180
276	18.4	27	2.7	236	2.9	240
277	16.0	165	2.8	187	3.0	180
278	17.5	57	2.7	236	3.0	180
279	13.4	278	2.9	127	3.0	180
280	14.6	250	3.0	80	3.1	118

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.40**	-.31**

** Significant at the .01 level

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	17.1	2.8	3.0
Lancota	16.7	2.7	2.9
Centurk	15.8	2.9	3.0
CI13449	15.2	3.2	3.3
Bezostaya 1	14.8	2.8	3.0
CR8156	13.7	2.9	3.0
Overall means	15.5	2.9	3.0
$LSD_{.05}$ of the means	1.5	0.3	0.3
Coefficient of variation (%)	6.4	6.5	5.5

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975.

Entry no.[1]	Protein		Lysine/protein		Adjusted lysine/protein		Date of heading	Date of maturity	Plant height	Yield	Stem rust	Stripe rust	Mildew
	%	rank	%	rank	%	rank	days from Jan. 1		cm	gms			0-9
1	11.8	178	3.0	174	3.0	215	128	174	110	400	0	25S	0
2	12.5	135	2.9	215	2.9	260	126	174	110	540	0	0	0
3	9.8	270	3.5	19	3.2	64	138	178	75	405	0	0	0
4	10.5	252	3.4	34	3.2	64	133	179	95	615	0	0	0
5	11.4	197	3.3	57	3.2	64	131	179	95	325	0	0	0
6	11.6	188	3.3	57	3.2	64	130	178	120	650	0	0	0
7	11.2	210	3.2	90	3.1	127	136	180	85	535	0	0	0
8	12.8	123	3.1	137	3.2	64	130	178	125	315	20S	25S	0
9	11.8	178	3.1	137	3.1	127	137	179	75	335	0	0	0
10	11.4	197	3.2	90	3.1	127	136	179	120	500	50S	0	0
11	10.8	233	3.2	90	3.1	127	134	178	90	550	30MS	0	0
12	13.3	99	3.1	137	3.1	127	127	171	100	510	0	0	5
13	12.5	135	3.2	90	3.2	64	131	172	105	500	0	0	7
14	12.5	135	3.0	174	3.0	215	131	178	95	560	30S	50S	6
15	10.7	240	3.4	34	3.2	64	135	170	105	450	10MS	25S	5
16	10.6	246	3.3	57	3.1	127	132	179	105	560	10S	10S	4
17	10.8	233	3.2	90	3.1	127	136	179	95	330	10S	25S	3
18	11.4	197	3.2	90	3.1	127	135	174	118	570	5S	25S	2
19	13.1	113	3.0	174	3.0	215	129	174	105	350	25S	0	3
20	13.2	106	3.1	137	3.1	127	128	172	105	615	10MS	20MS	2
21	11.8	178	3.1	137	3.0	215	128	175	110	420	10S	10MS	3
22	11.9	168	3.2	90	3.1	127	124	174	95	580	0	0	3
23	10.2	263	3.3	57	3.0	215	126	179	105	480	0	10MS	4
24	12.5	135	3.1	137	3.1	127	125	171	95	480	0	5MS	7
25	11.9	168	3.3	57	3.2	64	128	172	90	400	10MS	0	3
26	11.9	168	3.1	137	3.0	215	125	178	105	515	0	0	2
27	14.6	52	2.9	215	3.1	127	128	171	100	455	10S	25S	2
28	13.3	99	3.1	137	3.1	127	131	173	105	495	10S	10MS	2
29	14.4	60	3.0	174	3.2	64	123	170	95	370	0	0	0
30	13.9	78	3.0	174	3.1	127	127	171	85	480	0	10S	0
31	14.9	45	2.9	215	3.1	127	124	173	95	330	0	50MS	2
32	11.4	197	3.3	57	3.2	64	126	173	100	420	20S	0	8
33	11.8	178	3.1	137	3.0	215	131	172	95	390	20S	0	7
34	12.2	152	3.1	137	3.1	127	126	171	100	520	10S	0	7
35	11.4	197	3.2	90	3.1	127	129	172	95	365	0	0	8
36	11.8	178	3.2	90	3.1	127	127	171	100	480	10S	0	4
37	10.6	246	3.3	57	3.1	127	127	172	100	415	0	0	4
38	13.7	84	2.9	215	3.0	215	130	175	100	440	0	10S	2
39	13.2	106	2.9	215	2.9	260	133	175	85	395	0	10MS	0
40	13.1	113	2.9	215	3.0	215	133	175	90	380	0	25MS	0

1/ Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry	Protein		Lysine/protein		Adjusted lysine/protein		Date of heading	Date of maturity	Plant height	Yield	Stem rust	Stripe rust	Mildew
no.	%	rank	%	rank	%	rank	days from Jan. 1		cm	gms			0-9
41	13.2	106	2.8	254	2.9	260	128	173	100	500	0	10MS	2
42	10.4	256	3.2	90	2.9	260	119	168	80	755	0	0	0
43	12.4	142	2.9	215	2.9	260	128	173	90	390	0	0	0
44	13.5	91	3.0	174	3.0	215	128	174	100	400	0	5S	0
45	14.3	64	3.0	174	3.1	127	128	174	95	550	10S	10MS	4
46	14.6	52	3.1	137	3.2	64	129	174	100	285	5S	50S	0
47	14.4	60	3.2	90	3.3	24	128	173	90	360	0	10S	0
48	14.2	68	3.1	137	3.2	64	128	173	90	390	0	10S	2
49	13.8	82	3.2	90	3.3	24	129	173	95	310	0	5S	0
50	11.5	191	3.2	90	3.1	127	124	174	110	375	0	25S	0
51	13.2	106	3.0	174	3.1	127	128	176	105	290	0	5MS	0
52	13.3	99	3.0	174	3.1	127	124	174	105	455	10S	5S	0
53	13.2	106	3.1	137	3.1	127	135	178	110	320	0	10S	0
54	11.9	168	3.2	90	3.2	64	131	179	95	490	10S	5MS	0
55	11.9	168	3.2	90	3.1	127	133	178	115	435	0	5S	0
56	11.6	188	3.2	90	3.1	127	130	178	105	635	0	0	0
57	11.1	216	3.4	34	3.2	64	133	178	105	410	20S	5S	4
58	11.3	204	3.2	90	3.1	127	129	179	105	605	20S	5S	0
59	11.0	222	3.2	90	3.0	215	135	180	105	625	10S	0	0
60	11.3	204	3.3	57	3.2	64	130	179	105	605	0	10S	0
61	10.9	227	3.5	19	3.3	24	133	179	95	500	50S	0	0
62	10.8	233	3.3	57	3.1	127	130	179	90	500	20S	0	0
63	11.9	168	3.2	90	3.2	64	130	180	100	530	0	5S	0
64	11.2	210	3.3	57	3.1	127	129	178	95	410	0	5S	0
65	11.2	210	3.4	34	3.2	64	133	179	95	375	50S	5S	0
66	11.0	222	3.4	34	3.3	24	129	180	105	630	0	0	0
67	12.1	158	3.2	90	3.2	64	129	179	105	620	0	10MS	0
68	11.3	204	3.3	57	3.1	127	133	178	105	480	10MS	5MS	0
69	12.0	162	2.9	215	2.9	260	134	179	105	450	10S	5S	0
70	11.1	216	3.4	34	3.3	24	128	179	95	520	20MS	0	0
71	10.7	240	3.3	57	3.1	127	136	178	90	435	50S	0	0
72	10.8	233	3.4	34	3.2	64	135	180	85	585	0	75S	0
73	10.3	260	3.2	90	3.0	215	131	179	80	395	60S	10S	0
74	12.5	135	3.1	137	3.2	64	131	176	90	480	0	50S	0
75	11.7	184	3.3	57	3.3	24	135	179	105	325	30S	30S	0
76	11.2	210	3.5	19	3.4	7	135	180	90	400	0	25S	2
77	12.5	135	3.3	57	3.3	24	136	180	115	350	0	50S	0
78	10.7	240	3.5	19	3.3	24	135	180	90	470	40S	5MS	0
79	13.3	99	3.1	137	3.2	64	135	179	115	530	50S	0	0
80	11.9	168	3.4	34	3.3	24	136	180	90	585	10S	0	0

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Date of heading (days from Jan. 1)	Date of maturity (days from Jan. 1)	Plant height cm	Yield gms	Stem rust	Stripe rust	Mildew 0-9
81	11.3	204	3.2	90	3.1	127	131	176	95	410	30S	0	0
82	12.9	119	2.9	215	3.0	215	127	176	95	510	30S	0	0
83	9.3	276	3.7	6	3.3	24	132	178	70	420	50S	0	0
84	11.6	188	3.2	90	3.1	127	135	179	100	580	5MR	25MS	0
85	12.4	142	3.2	90	3.2	64	135	179	120	465	10MS	0	0
86	13.0	117	3.0	174	3.1	127	137	180	90	480	30S	5MS	0
87	13.0	117	2.9	215	3.0	215	136	179	100	465	20S	10S	0
88	11.8	178	3.0	174	3.0	215	132	178	120	465	10S	5S	0
89	12.2	152	3.0	174	3.0	215	133	178	95	475	0	10S	0
90	12.6	129	3.0	174	3.0	215	131	178	100	515	10S	0	0
91	12.2	152	3.0	174	3.0	215	134	179	120	435	20S	40S	0
92	12.1	158	3.1	137	3.0	215	131	178	115	585	10S	0	0
93	11.0	222	3.3	57	3.1	127	136	180	120	310	0	25S	0
94	11.8	178	3.2	90	3.2	64	132	178	110	585	40S	25MS	0
95	13.1	113	3.2	90	3.3	24	134	179	95	365	20S	0	5
96	12.2	152	3.3	57	3.2	64	128	180	120	395	30S	0	2
97	12.4	142	3.2	90	3.2	64	133	178	90	480	0	25S	2
98	12.4	142	3.2	90	3.2	64	138	179	95	445	0	40S	0
99	12.3	147	3.2	90	3.2	64	131	180	110	570	0	100S	0
100	12.2	152	3.1	137	3.1	127	138	180	95	475	20S	40MS	0
102[2/]	14.4	60	2.9	215	3.1	127	134	179	115	785	0	25S	0
103	15.1	41	2.8	254	3.0	215	135	179	90	420	0	0	0
104	13.4	95	2.8	254	2.9	260	131	180	105	440	0	10MS	4
105	13.9	78	2.8	254	2.9	260	133	179	105	495	0	0	4
106	14.6	52	2.8	254	2.9	260	133	179	105	400	40S	5S	2
107	14.3	64	2.7	273	2.9	260	132	178	110	585	10S	5S	2
108	15.2	38	2.9	215	3.1	127	131	179	85	350	10S	0	3
109	14.1	72	3.0	174	3.1	127	130	178	100	525	10MS	0	0
110	15.6	31	2.8	254	3.0	215	128	178	95	380	0	0	2
111	13.6	87	3.0	174	3.1	127	127	174	95	450	0	0	0
112	15.9	25	2.8	254	3.0	215	137	178	110	395	30S	0	2
113	13.2	106	3.3	57	3.4	7	134	177	105	405	20MS	0	1
114	13.2	106	3.1	137	3.1	127	135	178	105	550	0	0	0
115	12.6	129	3.2	90	3.2	64	132	177	115	435	0	5S	0
116	12.8	123	3.2	90	3.2	64	136	170	115	440	10MS	0	5
117	13.5	91	3.0	174	3.1	127	133	177	110	490	5MS	10MS	0
118	14.3	64	2.9	215	3.0	215	135	178	110	320	0	0	6
119	15.3	37	2.8	254	3.0	215	123	177	95	380	40MS	0	0
120	15.6	31	3.0	174	3.2	64	131	177	105	405	10MS	0	0
121	15.1	41	2.9	215	3.1	127	125	175	100	455	0	5S	0

[2/] Missing entries were not harvested.

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Date of heading (days from Jan. 1)	Date of maturity (days from Jan. 1)	Plant height cm	Yield gms	Stem rust	Stripe rust	Mildew 0-9
122	12.0	162	3.2	90	3.2	64	125	175	95	300	0	5S	0
123	13.9	78	2.9	215	3.0	215	128	178	90	500	80S	0	0
124	15.0	44	2.9	215	3.1	127	136	179	110	390	40S	0	3
125	15.2	38	2.7	273	2.9	260	133	178	100	380	0	25MS	0
126	16.4	18	3.0	174	3.2	64	127	176	100	425	5MS	25MS	0
127	14.1	72	2.9	215	3.1	127	124	175	95	425	0	5MS	0
128	15.6	31	2.8	254	3.0	215	128	176	100	395	0	5S	0
129	14.2	68	2.9	215	3.0	215	126	173	105	365	5S	0	0
130	13.3	99	3.0	174	3.1	127	127	173	100	520	5S	10MS	0
131	12.5	135	3.3	57	3.3	24	132	177	100	480	40S	0	0
132	13.6	87	3.2	90	3.3	24	134	178	95	365	50S	10MS	0
133	14.4	60	3.1	137	3.2	64	132	179	100	410	10MS	10S	0
134	12.8	123	3.2	90	3.2	64	128	180	92	475	10MS	5S	0
135	11.9	168	3.0	174	3.0	215	130	179	110	495	0	10S	0
136	12.1	158	3.2	90	3.2	64	131	178	95	435	10MS	5S	0
137	10.9	227	3.6	13	3.4	7	132	178	105	485	0	10S	0
138	11.4	197	3.3	57	3.2	64	135	179	110	435	0	40MS	0
139	11.2	210	3.2	90	3.1	127	127	178	105	535	10MS	0	0
140	11.1	216	3.1	137	3.0	215	126	178	95	440	30S	5S	0
141	10.7	240	3.2	90	3.0	215	129	177	105	555	30S	0	0
142	12.1	158	3.1	137	3.1	127	133	179	100	365	20S	5S	0
143	9.9	267	3.4	34	3.1	127	130	178	100	410	0	25S	0
144	10.5	252	3.2	90	3.0	215	133	178	100	390	10MS	10S	0
145	9.8	270	3.5	19	3.1	127	132	178	110	350	0	40S	0
146	11.4	197	3.4	34	3.3	124	132	178	115	500	0	40S	3
147	12.4	142	3.1	137	3.1	127	131	179	105	650	10MS	10MS	0
148	12.8	123	3.3	57	3.3	24	130	179	90	380	30S	5S	0
149	11.8	178	3.1	137	3.0	215	128	177	100	570	5S	40S	0
150	11.7	184	3.3	57	3.2	64	132	178	100	525	0	5S	2
151	13.4	95	2.9	215	2.9	260	123	170	95	455	10S	5S	0
152	12.8	123	3.1	137	3.1	127	133	174	105	565	20S	0	0
153	13.5	91	3.1	137	3.1	127	124	174	95	510	50S	10S	0
154	12.8	123	3.1	137	3.2	64	125	176	105	475	20S	0	0
155	11.5	191	3.0	174	2.9	260	126	176	110	470	20S	0	2
156	12.3	147	3.0	174	3.0	215	130	177	95	380	0	0	0
157	12.5	135	3.2	90	3.2	64	125	176	95	625	30S	5MS	0
158	12.7	127	3.2	90	3.2	64	137	178	90	385	50S	10MS	0
159	14.3	64	3.0	174	3.2	64	130	177	100	520	30S	10S	0
160	13.7	84	3.0	174	3.1	127	137	178	95	465	20S	10MS	0
161	13.6	87	2.9	215	3.0	215	126	175	100	495	10MS	25S	0

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry	Protein		Lysine/protein		Adjusted lysine/protein		Date of heading	Date of maturity	Plant height	Yield	Stem	Stripe	Mildew
no.	%	rank	%	rank	%	rank	days from Jan. 1		cm	gms	rust	rust	0-9
162	12.1	158	3.1	137	3.1	127	--	--	--	--	--	--	-
163	10.7	240	3.5	19	3.3	24	137	178	78	460	80S	5S	8
164	13.0	117	3.1	137	3.2	64	136	178	105	415	25S	10MS	0
165	13.9	78	3.1	137	3.2	64	129	176	115	365	30S	5S	0
166	16.3	19	2.9	215	3.1	127	133	176	105	290	0	5MS	0
167	16.8	9	3.1	137	3.3	24	132	172	85	700	10MS	10MS	0
168	16.7	12	3.0	174	3.2	64	135	178	95	350	40S	10MS	0
169	16.2	21	2.9	215	3.1	127	129	170	95	320	0	5MS	0
170	11.6	188	3.2	90	3.1	127	132	177	80	370	30S	40S	0
171	10.9	227	3.4	34	3.2	64	136	178	75	380	50S	10S	8
172	12.6	129	3.3	57	3.3	24	133	178	80	375	80S	25S	6
173	12.3	147	3.3	57	3.3	24	133	178	75	500	80S	40S	6
174	10.3	260	3.4	34	3.1	127	137	179	80	375	50S	10MS	0
175	9.5	273	3.7	6	3.4	7	136	177	90	455	50S	25MS	6
176	10.5	252	3.5	19	3.3	24	131	178	80	220	80S	25S	6
177	9.6	272	3.5	19	3.1	127	136	178	85	320	50S	100MS	2
178	9.5	273	3.5	19	3.1	127	133	177	85	360	50S	40MS	8
179	14.2	68	3.0	174	3.1	127	126	170	80	285	50S	25MS	0
180	15.4	35	3.0	174	3.1	127	128	170	80	310	50S	5S	0
181	--	--	--	--	--	--	127	169	80	485	40S	40S	0
182	16.3	19	2.8	254	3.0	215	128	169	80	230	30S	5S	2
183	16.1	22	3.0	174	3.2	64	128	170	85	340	30S	10S	0
184	17.0	7	2.8	254	3.0	215	129	170	75	225	25S	0	0
185	16.7	12	2.8	254	3.0	215	124	170	85	295	30S	0	0
186	15.9	25	2.9	215	3.1	127	129	171	85	285	30S	10S	0
187	11.1	216	3.2	90	3.1	127	127	173	85	585	40S	0	2
188	11.3	204	3.2	90	3.1	127	132	174	75	360	50S	0	8
189	10.8	233	3.4	34	3.2	64	123	171	80	555	80S	25S	4
190	10.4	256	3.5	19	3.3	24	128	173	80	410	40S	0	8
191	11.9	168	3.3	57	3.3	24	128	177	75	500	50S	0	7
192	13.2	106	3.1	137	3.2	64	131	178	70	230	10S	0	6
193	14.0	74	3.1	137	3.2	64	129	177	80	165	0	10MS	9
194	13.1	113	3.1	137	3.2	64	128	177	70	415	20S	40MS	4
195	--	--	--	--	--	--	129	170	80	340	30S	25MS	6
196	10.8	233	3.4	34	3.3	24	129	172	80	480	20S	10S	0
197	12.1	158	3.4	34	3.4	7	137	177	70	255	80S	0	4
198	10.3	260	3.7	6	3.4	7	133	178	80	450	50S	40S	6
199	10.9	227	3.4	34	3.2	64	136	178	80	340	40S	25S	8
200	11.0	222	3.5	19	3.4	7	136	178	80	330	50S	40S	8
201	13.4	95	3.0	174	3.1	127	130	179	95	410	0	0	0

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Date of heading (days from Jan. 1)	Date of maturity (days from Jan. 1)	Plant height cm	Yield gms	Stem rust	Stripe rust	Mildew 0-9
202	11.4	197	3.3	57	3.2	64	124	177	90	600	0	0	4
203	12.5	135	3.0	174	3.0	215	131	178	90	510	50S	0	0
204	10.5	252	3.7	6	3.5	2	135	178	85	465	50S	25S	6
205	11.1	216	3.6	13	3.4	7	136	180	80	425	80S	10MS	0
206	11.7	184	3.4	34	3.3	24	124	178	80	450	50S	25S	0
207	11.8	178	3.4	34	3.4	7	131	180	80	340	50S	40S	8
208	10.5	252	3.8	2	3.5	2	135	179	110	500	30S	25S	6
209	10.6	246	3.8	2	3.6	1	136	180	80	330	30S	40S	6
210	10.6	246	3.5	19	3.3	24	131	180	75	580	50S	0	7
211	10.0	266	3.7	6	3.4	7	136	179	75	390	50S	40S	7
212	10.2	263	3.6	13	3.3	24	132	178	85	470	50S	25S	4
213	9.9	267	3.7	6	3.3	24	137	179	75	340	50S	40S	7
214	10.1	265	3.8	2	3.5	2	129	177	70	515	50S	0	0
215	10.6	246	3.6	13	3.4	7	133	179	70	405	40S	75MS	0
216	11.3	204	3.4	34	3.3	24	124	170	90	630	30S	40MS	0
217	14.7	48	3.0	174	3.1	127	131	170	105	305	10S	10MS	0
218	14.7	48	3.0	174	3.2	64	119	168	105	390	40S	40MS	0
219	14.5	56	3.1	137	3.2	64	131	170	95	220	50S	0	0
220	14.5	56	3.0	174	3.2	64	124	169	100	565	10S	10MS	0
221	17.1	5	2.9	215	3.1	127	127	169	95	230	30S	0	0
222	15.8	27	2.8	254	3.0	215	127	169	95	330	40S	0	0
223	16.6	14	3.1	137	3.3	24	132	171	75	210	50S	10S	2
224	17.3	4	3.2	90	3.5	2	123	169	80	380	20S	0	2
225	17.0	7	3.1	137	3.3	24	123	169	85	350	40S	0	0
226	17.1	5	2.9	215	3.1	127	125	170	95	355	40S	0	0
227	17.4	3	3.0	174	3.3	24	128	171	90	235	50S	25S	0
228	15.5	34	3.0	174	3.2	64	124	169	90	340	50S	25S	0
229	15.1	41	2.9	215	3.1	127	125	169	90	310	30S	0	0
230	15.7	28	2.9	215	3.1	127	118	167	90	335	40S	10S	0
231	16.1	22	3.0	174	3.2	64	125	170	95	265	40S	25MS	0
232	16.6	14	2.8	254	3.0	215	119	170	85	385	40S	10S	0
233	16.5	16	2.9	215	3.1	127	128	172	95	285	50S	10S	1
234	17.6	2	2.8	254	3.0	215	123	169	90	255	0	0	0
235	16.5	16	2.9	215	3.1	127	124	169	95	150	0	0	0
236	14.6	52	2.9	215	3.1	127	119	167	95	310	0	0	0
237	13.5	91	3.3	57	3.4	7	126	169	80	260	20S	0	0
238	13.1	113	3.3	57	3.4	7	123	169	95	520	20S	5S	0
239	11.0	222	3.4	34	3.3	24	128	172	80	375	30S	25S	7
240	10.7	240	3.3	57	3.1	127	125	172	90	430	50S	25S	2
241	10.3	260	3.3	57	3.1	127	131	175	105	380	0	0	0

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Continued.

Entry	Protein		Lysine/protein		Adjusted lysine/protein		Date of heading	Date of maturity	Plant height	Yield	Stem	Stripe	Mildew
no.	%	rank	%	rank	%	rank	days from Jan. 1		cm	gms	rust	rust	0-9
242	11.4	197	3.0	174	2.9	260	125	175	100	585	0	0	0
243	8.4	277	4.0	1	3.4	7	138	180	70	335	50S	25S	0
244	9.8	270	3.5	19	3.2	64	126	171	100	535	50S	0	2
245	10.9	227	3.6	13	3.4	7	134	179	85	390	80S	40S	0
246	10.5	252	3.5	19	3.3	24	129	179	80	530	80S	40S	0
247	10.5	252	3.6	13	3.4	7	136	179	80	465	50S	25S	0
248	11.2	210	3.3	57	3.2	64	129	179	75	520	50S	40S	0
249	10.8	233	3.5	19	3.3	24	136	179	65	370	70S	5S	0
250	11.7	184	3.3	57	3.2	64	125	180	80	620	70S	40S	0
251	10.8	233	3.4	34	3.3	24	132	179	100	445	40S	0	0
252	11.1	216	3.4	34	3.3	24	123	171	95	525	50S	25S	2
253	10.3	260	3.8	2	3.5	2	136	180	75	200	40S	100MS	4
254	9.4	275	3.7	6	3.3	24	129	180	80	640	50S	75S	6
255	13.9	78	3.2	90	3.3	24	119	170	80	420	30S	0	5
256	12.9	119	3.3	57	3.3	24	128	174	100	335	30S	5S	1
257	13.9	78	3.1	137	3.2	64	128	180	90	330	0	25S	1
258	11.9	168	3.3	57	3.3	24	123	179	90	540	10S	40S	0
259	12.2	152	3.4	34	3.4	7	122	173	90	460	10S	40S	0
260	12.2	152	3.2	90	3.2	64	130	175	105	400	20S	0	0
261	17.7	1	2.6	276	2.9	260	119	169	80	480	10MS	0	0
262	14.7	48	2.9	215	3.1	127	117	172	90	530	0	10S	0
263	13.8	82	2.9	215	3.1	127	119	171	85	280	30S	0	0
264	14.5	56	2.9	215	3.1	127	118	173	80	680	20S	10MS	0
265	15.6	31	2.8	254	3.0	215	118	172	55	330	30S	0	0
266	14.2	68	2.7	273	2.8	276	117	170	75	640	30S	0	0
267	15.1	41	2.6	276	2.7	277	118	171	60	270	5MS	0	0
268	14.1	72	2.9	215	3.1	127	116	170	75	630	10S	0	0
269	14.0	74	2.9	215	3.1	127	118	170	70	315	0	0	0
270	14.5	56	2.8	254	2.9	260	117	171	70	445	10S	0	0
271	15.6	31	2.9	215	3.1	127	124	174	85	355	20S	0	0
272	14.9	45	3.0	174	3.1	127	117	170	80	540	30S	0	0
273	15.9	25	2.8	254	3.0	215	127	175	70	265	20S	0	0
274	13.2	106	3.0	174	3.1	127	115	168	70	545	30S	0	0
275	15.4	35	2.8	254	3.0	215	121	172	70	340	30S	5S	0
276	16.8	9	2.9	215	3.1	127	119	170	80	535	40S	0	0
277	16.7	12	2.9	215	3.1	127	123	180	80	145	10S	0	0
278	14.7	48	2.9	215	3.1	127	127	175	105	620	10S	5S	0
279	12.4	142	3.2	90	3.2	64	124	180	90	395	0	0	0
280	13.5	91	3.0	174	3.0	215	128	176	90	650	50S	0	0

Table 9. Protein and lysine values together with agronomic and disease data for the entries in the first high protein-high lysine observation nursery grown at Karaj, Iran in 1975. Concluded.

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.80**	-.32**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	14.1	2.9	3.1
Bezostaya 1	13.1	2.9	3.0
Lancota	12.2	3.0	3.0
Centurk	11.8	3.1	3.0
CR8156	11.6	3.2	3.1
CI13449	9.6	3.7	3.3
Overall means	12.0	3.1	3.1
$LSD_{.05}$ of the means	1.5	0.2	0.1
Coefficient of variation (%)	8.0	3.9	1.8

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordan in 1975.

Entry no. [1]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	13.5	141	3.0	132	3.1	101
2	15.5	52	2.8	244	3.0	168
3	13.4	149	3.1	74	3.1	101
4	14.6	89	3.0	132	3.2	56
5	13.7	130	3.0	132	3.1	101
6	13.0	176	2.9	200	3.0	168
7	15.5	52	2.7	270	2.9	235
8	13.7	130	2.9	200	3.0	168
9	13.8	121	2.7	270	2.8	275
10	14.1	109	2.8	244	2.9	235
11	12.6	198	2.9	200	2.9	235
12	13.8	121	3.0	132	3.1	101
13	12.5	204	2.9	200	2.9	235
14	13.4	149	2.8	244	2.9	235
15	11.5	246	3.1	74	3.0	168
16	12.6	198	2.8	244	2.8	275
17	14.0	114	2.8	244	2.9	235
18	13.4	149	3.0	132	3.0	168
19	14.0	114	3.0	132	3.1	101
20	13.7	130	2.8	244	2.9	235
21	13.4	149	3.0	132	3.0	168
22	12.8	190	3.0	132	3.0	168
23	11.5	246	3.2	29	3.1	101
24	14.4	98	2.7	270	2.9	235
25	14.5	95	2.9	200	3.1	101
26	12.8	190	2.8	244	2.9	235
27	15.5	52	2.8	244	3.0	168
28	16.1	34	2.7	270	2.9	235
29	13.8	121	3.0	132	3.1	101
30	14.5	95	2.8	244	2.9	235
31	14.7	81	2.9	200	3.0	168
32	12.5	204	3.1	74	3.1	101
33	11.6	239	3.2	29	3.1	101
34	11.4	250	3.1	74	3.0	168
35	12.0	226	3.1	74	3.0	168
36	12.4	210	3.1	74	3.1	101
37	11.5	246	3.3	9	3.2	56
38	16.9	23	2.7	270	2.9	235
39	16.2	33	2.8	244	3.0	168
40	14.7	81	2.8	244	2.9	235
41	13.6	137	3.0	132	3.1	101
42	11.1	260	3.1	74	3.0	168
43	11.2	255	3.3	9	3.1	101
44	13.1	169	2.9	200	3.0	168
45	14.6	89	3.1	74	3.2	56
46	13.8	121	3.0	132	3.1	101
47	14.6	89	3.0	132	3.2	56
48	14.8	74	3.0	132	3.2	56
49	14.6	89	3.1	74	3.3	25
50	13.4	149	2.9	200	2.9	235

[1] 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordan in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
51	15.4	56	2.9	200	3.1	101
52	15.9	41	2.8	244	3.0	168
53	14.5	95	2.9	200	3.0	168
54	12.4	210	3.1	74	3.1	101
55	11.6	239	3.3	9	3.2	56
56	11.1	260	3.2	29	3.1	101
57	11.6	239	3.2	29	3.1	101
58	10.9	266	3.4	4	3.2	56
59	11.8	233	3.1	74	3.0	168
60	13.2	164	3.1	74	3.2	56
61	12.2	217	3.3	9	3.3	25
62	12.6	198	3.2	29	3.2	56
63	11.9	231	3.1	74	3.0	168
64	10.8	269	3.3	9	3.1	101
65	11.2	255	3.3	9	3.2	56
66	10.8	269	3.3	9	3.1	101
67	11.1	260	3.1	74	2.9	235
68	11.6	239	3.2	29	3.1	101
69	11.5	246	3.2	29	3.1	101
70	12.9	184	2.8	244	2.9	235
71	12.5	204	3.0	132	3.0	168
72	12.5	204	3.1	74	3.1	101
73	12.0	226	3.0	132	3.0	168
74	13.0	176	3.0	132	3.1	101
75	13.7	130	2.9	200	3.0	168
76	14.8	74	2.9	200	3.0	168
77	13.1	169	3.1	74	3.1	101
78	12.5	204	3.2	29	3.2	56
79	13.0	176	2.8	244	2.9	235
80	12.9	184	3.2	29	3.2	56
81	11.1	260	3.1	74	2.9	235
82	11.9	231	3.0	132	2.9	235
83	10.7	272	3.3	9	3.1	101
84	12.0	226	3.1	74	3.0	168
85	11.3	252	3.1	74	3.0	168
86	13.1	169	3.0	132	3.0	168
87	12.4	210	3.0	132	3.0	168
88	11.2	255	3.0	132	2.9	235
89	10.9	266	3.1	74	2.9	235
90	11.1	260	3.0	132	2.8	275
91	11.5	246	3.1	74	3.0	168
92	10.4	279	3.2	29	3.0	168
93	10.5	277	3.2	29	2.9	235
94	11.0	264	3.2	29	3.0	168
95	11.3	252	3.0	132	2.9	235
96	12.4	210	2.9	200	2.9	235
97	11.8	233	3.1	74	3.0	168
98	10.2	280	3.1	74	2.8	275
99	11.0	264	3.1	74	2.9	235
100	10.8	269	3.1	74	2.9	235

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordon in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
101	10.5	277	3.2	29	3.0	168
102	11.9	231	3.1	74	3.1	101
103	13.0	176	3.0	132	3.0	168
104	11.5	246	3.1	74	3.0	168
105	12.7	194	2.9	200	2.9	235
106	12.5	204	2.9	200	3.0	168
107	11.3	252	3.0	132	2.9	235
108	12.4	210	2.8	244	2.8	275
109	12.2	217	2.9	200	2.9	235
110	13.8	121	2.8	244	2.9	235
111	12.9	184	2.9	200	3.0	168
112	15.0	68	2.8	244	3.0	168
113	13.3	158	2.9	200	3.0	168
114	13.8	121	3.2	29	3.3	25
115	13.6	137	3.0	132	3.1	101
116	14.3	103	3.0	132	3.2	56
117	14.0	114	2.9	200	3.1	101
118	15.1	64	3.0	132	3.2	56
119	14.1	109	3.0	132	3.1	101
120	12.9	184	3.2	29	3.2	56
121	12.9	184	3.0	132	3.0	168
122	10.6	274	3.2	29	2.9	235
123	10.7	272	3.2	29	3.0	168
124	14.5	95	3.0	132	3.1	101
125	12.9	184	2.9	200	2.9	235
126	13.5	141	3.1	74	3.2	56
127	13.7	130	2.7	270	2.8	275
128	14.9	70	3.0	132	3.1	101
129	14.3	103	2.9	200	3.0	168
130	14.8	74	3.0	132	3.1	101
131	15.6	49	3.0	132	3.2	56
132	12.8	190	3.2	29	3.2	56
133	13.0	176	3.1	74	3.1	101
134	10.6	274	3.5	3	3.3	25
135	11.7	235	3.0	132	2.9	235
136	11.1	260	3.4	4	3.3	25
137	12.8	190	3.1	74	3.1	101
138	12.5	204	3.1	74	3.1	101
139	13.3	158	3.0	132	3.1	101
140	12.1	221	3.2	29	3.2	56
141	12.1	221	3.2	29	3.1	101
142	12.2	217	3.0	132	3.0	168
143	11.2	255	3.2	29	3.1	101
144	11.6	239	3.2	29	3.2	56
145	13.3	158	3.2	29	3.3	25
146	13.8	121	3.0	132	3.1	101
147	13.2	164	3.1	74	3.2	56
148	12.7	194	3.3	9	3.4	5
149	13.0	176	3.0	132	3.1	101
150	12.8	190	3.2	29	3.3	25

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordon in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
151	12.9	184	3.1	74	3.2	56
152	12.7	194	3.2	29	3.2	56
153	13.0	176	3.1	74	3.1	101
154	14.7	81	2.8	244	3.0	168
155	13.7	130	3.0	132	3.1	101
156	12.0	226	3.0	132	3.0	168
157	14.6	89	3.0	132	3.2	56
158	14.3	103	2.9	200	3.0	168
159	14.3	103	3.0	132	3.1	101
160	15.2	61	2.8	244	3.0	168
161	13.1	169	3.0	132	3.0	168
162	14.7	81	2.7	270	2.9	235
163	13.5	141	3.0	132	3.1	101
164	16.0	37	2.8	244	2.9	235
165	15.0	68	2.9	200	3.0	168
166	17.0	21	2.9	200	3.1	101
167	19.2	3	2.9	200	3.1	101
168	18.2	11	2.9	200	3.2	56
169	15.3	59	2.9	200	3.1	101
170	13.7	130	3.0	132	3.1	101
171	12.4	210	3.2	29	3.2	56
172	13.7	130	3.1	74	3.2	56
173	13.6	137	3.3	9	3.4	5
174	12.2	217	3.1	74	3.0	168
175	11.7	235	3.1	74	3.0	168
176	12.1	221	3.4	4	3.4	5
177	11.6	239	3.2	29	3.1	101
178	12.3	214	3.0	132	3.0	168
179	14.9	70	3.2	29	3.3	25
180	15.1	64	3.2	29	3.3	25
181	17.7	15	3.0	132	3.3	25
182	17.9	13	3.0	132	3.2	56
183	18.4	9	3.1	74	3.3	25
184	19.0	5	2.9	200	3.1	101
185	18.8	6	3.1	74	3.3	25
186	18.6	7	3.1	74	3.3	25
187	15.9	41	3.1	74	3.3	25
188	15.8	45	3.2	29	3.4	5
189	16.4	30	3.0	132	3.2	56
190	16.0	37	3.0	132	3.2	56
191	16.4	30	3.0	132	3.2	56
192	15.6	49	2.8	244	3.0	168
193	16.0	37	3.0	132	3.1	101
194	14.7	81	3.2	29	3.4	5
195	14.3	103	3.2	29	3.3	25
196	15.2	61	3.2	29	3.4	5
197	15.5	52	3.2	29	3.4	5
198	13.4	149	3.0	132	3.1	101
199	14.1	109	3.1	74	3.2	56
200	12.7	194	3.0	132	3.1	101

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordon in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
201	14.8	74	2.9	200	3.1	101
202	12.1	221	3.0	132	3.0	168
203	12.2	217	3.1	74	3.1	101
204	13.3	158	3.3	9	3.4	5
205	14.1	109	3.2	29	3.3	25
206	13.4	149	3.1	74	3.2	56
207	13.9	116	3.4	4	3.5	3
208	14.7	81	3.1	74	3.3	25
209	14.8	74	3.2	29	3.4	5
210	14.6	89	3.3	9	3.4	5
211	13.4	149	3.2	29	3.2	56
212	15.6	49	3.1	74	3.3	25
213	13.7	130	3.3	9	3.4	5
214	15.4	56	3.4	4	3.6	1
215	14.7	81	3.1	74	3.3	25
216	13.4	149	3.2	29	3.3	25
217	18.5	8	3.0	132	3.2	56
218	16.7	25	3.1	74	3.3	25
219	18.2	11	3.0	132	3.3	25
220	15.8	45	3.0	132	3.2	56
221	17.4	17	3.0	132	3.2	56
222	16.6	27	2.7	270	3.0	168
223	17.3	19	3.0	132	3.2	56
224	17.9	13	3.1	74	3.3	25
225	16.6	27	3.1	74	3.3	25
226	16.9	23	3.1	74	3.3	25
227	19.1	4	3.2	29	3.4	5
228	17.5	16	2.9	200	3.1	101
229	16.4	30	3.0	132	3.2	56
230	16.9	23	2.9	200	3.2	56
231	17.4	17	2.8	244	3.0	168
232	17.2	20	2.8	244	3.0	168
233	19.6	1	2.9	200	3.1	101
234	19.4	2	2.9	200	3.1	101
235	18.3	10	2.8	244	3.0	168
236	16.0	37	3.2	29	3.4	5
237	15.4	56	3.1	74	3.3	25
238	15.9	41	3.1	74	3.2	56
239	13.1	169	3.3	9	3.4	5
240	14.6	89	3.3	9	3.4	5
241	11.5	246	3.3	9	3.2	56
242	13.1	169	2.9	200	2.9	235
243	10.7	272	3.2	29	3.0	168
244	12.0	226	3.6	1	3.5	3
245	13.8	121	3.3	9	3.4	5
246	13.4	149	3.3	9	3.4	5
247	13.3	158	3.1	74	3.2	56
248	13.4	149	3.2	29	3.3	25
249	13.2	164	3.3	9	3.4	5
250	13.5	141	3.2	29	3.3	25

Table 10. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Amman, Jordon in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
251	12.0	226	3.6	1	3.6	1
252	13.3	158	3.3	9	3.4	5
253	13.2	164	3.2	29	3.3	25
254	15.2	61	3.2	29	3.4	5
255	16.0	37	3.0	132	3.2	56
256	16.3	32	2.9	200	3.1	101
257	15.8	45	3.1	74	3.3	25
258	13.4	149	3.1	74	3.2	56
259	15.1	64	3.1	74	3.3	25
260	15.1	64	2.9	200	3.1	101
261	16.6	27	2.8	244	3.0	168
262	14.3	103	3.0	132	3.1	101
263	13.0	176	3.0	132	3.0	168
264	13.6	137	2.9	200	3.0	168
265	15.8	45	2.9	200	3.1	101
266	14.7	81	2.7	270	2.9	235
267	15.9	41	2.7	270	2.9	235
268	14.7	81	3.0	132	3.1	101
269	14.1	109	3.0	132	3.1	101
270	14.3	103	3.0	132	3.1	101
271	14.5	95	2.9	200	3.0	168
272	14.4	98	2.9	200	3.0	168
273	15.0	68	2.7	270	2.9	235
274	14.1	109	2.9	200	3.0	168
275	13.8	121	2.9	200	3.0	168
276	15.4	56	2.8	244	2.9	235
277	13.2	164	2.9	200	3.0	168
278	13.6	137	3.0	132	3.1	101
279	10.5	277	3.1	74	2.9	235
280	12.6	198	2.9	200	2.9	235

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.40**	-.26**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Lancota	13.8	2.9	2.9
Atlas 66	13.7	3.0	3.1
Centurk	12.3	3.1	3.1
CI13449	12.1	3.2	3.1
Bezostaya 1	11.7	3.1	3.0
CR8156	11.1	3.1	2.9
Overall means	12.4	3.0	3.0
LSD .05 of the means	1.2	0.2	0.1
Coefficient of variation (%)	6.2	3.4	2.1

Table 11. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975.

Entry no. [1]	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade [2]
	%	rank	%	rank	%	rank	1-9
1	17.0	204	3.0	48	3.2	52	8
2	16.9	213	2.6	236	2.8	241	5
3	19.7	60	3.2	8	3.4	7	9
4	18.6	111	2.9	90	3.1	92	9
5	17.0	204	3.0	48	3.2	52	6
6	16.1	246	2.9	90	3.1	92	6
7	17.4	183	2.9	90	3.1	92	7
8	17.3	188	2.7	193	2.9	199	5
9	18.3	128	2.9	90	3.1	92	7
10	17.0	204	2.9	90	3.1	92	5
11	18.6	111	3.0	48	3.3	29	7
12	23.1	6	2.6	236	2.7	269	6
13	15.6	260	2.8	143	3.0	145	5
14	16.3	241	3.1	26	3.3	29	8
15	16.0	249	2.8	143	3.0	145	9
16	17.0	204	3.0	48	3.2	52	9
17	19.0	90	2.8	143	3.0	145	9
18	19.6	66	2.9	90	3.1	92	9
19	16.9	213	2.6	236	2.8	241	3
20	17.1	195	2.7	193	2.9	199	4
21	17.5	177	2.6	236	2.8	241	4
22	17.4	183	2.9	90	3.2	52	7
23	17.9	151	3.0	48	3.2	52	7
24	19.1	85	2.8	143	3.0	145	7
25	18.0	144	3.0	48	3.2	52	7
26	18.6	111	2.6	236	2.8	241	6
27	20.1	51	2.6	236	2.8	241	7
28	19.2	81	2.7	193	2.9	199	5
29	16.3	241	2.9	90	3.1	92	4
30	15.6	260	2.8	143	3.0	145	4
31	15.5	264	2.8	143	3.0	145	4
32	16.4	236	3.0	48	3.2	52	6
33	17.8	159	2.8	143	3.0	145	6
34	17.0	204	2.7	193	2.9	199	8
35	17.0	204	3.0	48	3.2	52	7
36	17.9	151	2.6	236	2.8	241	7
37	16.8	218	3.0	48	3.2	52	6
38	21.0	29	2.6	236	2.8	241	6
39	19.2	81	3.0	48	3.2	52	7
40	22.5	9	2.5	269	2.7	269	7
41	18.7	103	2.6	236	2.8	241	6
42	18.0	144	2.7	193	3.0	145	8
43	17.9	151	2.6	236	2.8	241	3
44	19.6	66	2.7	193	2.9	199	7
45	19.2	81	2.7	193	2.9	199	6
46	19.5	71	2.7	193	3.0	145	7
47	19.0	90	2.9	90	3.1	92	6
48	19.7	60	2.6	236	2.8	241	6
49	18.8	97	2.9	90	3.2	52	4
50	16.3	241	2.7	193	3.0	145	4

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243, are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

[2] 1 = excellent, 9 = very poor.

Table 11. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Seed grade 1-9
51	18.6	111	2.7	193	2.9	199	5
52	18.2	133	2.8	143	3.0	145	5
53	18.7	103	2.8	143	3.0	145	5
54	16.4	236	2.6	236	2.8	241	4
55	17.6	170	2.9	90	3.1	92	7
56	17.5	177	3.1	26	3.3	29	7
57	18.2	133	2.7	193	2.9	199	6
58	16.1	246	3.0	48	3.2	52	7
59	15.7	256	3.2	8	3.4	7	7
60	15.6	260	3.1	26	3.3	29	7
61	15.9	251	3.0	48	3.2	52	7
62	16.0	249	2.9	90	3.1	92	7
63	17.7	165	3.1	26	3.3	29	7
64	19.5	71	2.9	90	3.1	92	7
65	18.2	133	2.9	90	3.1	92	7
66	17.4	183	3.0	48	3.2	52	7
67	17.7	165	2.9	90	3.1	92	6
68	21.7	18	2.8	143	3.0	145	7
69	19.8	56	2.9	90	3.1	92	7
70	17.6	170	2.8	143	3.0	145	3
71	16.8	218	2.9	90	3.1	92	7
72	21.4	21	2.9	90	3.1	92	8
73	16.1	246	3.0	48	3.2	52	7
74	19.7	60	2.6	236	2.9	199	6
75	17.9	151	2.7	193	2.9	199	6
76	21.9	15	2.6	236	2.8	241	9
77	18.9	94	2.9	90	3.2	52	5
78	20.7	35	2.8	143	3.0	145	9
79	20.3	43	2.8	143	3.0	145	5
80	20.3	43	2.9	90	3.1	92	7
81	20.3	43	2.8	143	3.0	145	9
82	17.5	177	2.6	236	2.8	241	3
83	20.2	48	3.0	48	3.2	52	9
84	18.3	128	2.8	143	3.1	92	3
85	18.7	103	2.4	272	2.7	269	5
86	23.1	6	2.6	236	2.8	241	8
87	19.7	60	2.8	143	3.0	145	6
88	18.4	124	2.6	236	2.8	241	5
89	17.1	195	2.7	193	2.9	199	5
90	15.6	260	2.8	143	3.0	145	5
92[3/]	16.8	218	2.8	143	3.0	145	6
93	17.6	170	2.9	90	3.1	92	6
94	17.1	195	2.9	90	3.1	92	6
95	19.9	54	2.9	90	3.1	92	8
96	16.4	236	2.8	143	3.0	145	5
97	17.7	165	2.9	90	3.2	52	6
98	20.3	43	2.9	90	3.1	92	9
99	18.1	138	2.9	90	3.1	92	7
101	20.8	33	2.9	90	3.1	92	8
102	18.7	103	2.8	143	3.0	145	5

[3/] Missing entries were not harvested.

Table 11. Protein and lysine values together with seed grades for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Seed grade 1-9
103	19.7	60	2.9	90	3.1	92	6
104	17.0	204	2.7	193	2.9	199	5
105	21.2	26	1.9	273	2.1	273	7
106	18.1	138	2.7	193	3.0	145	3
107	18.5	119	2.8	143	3.0	145	5
108	18.8	97	2.9	90	3.1	92	6
109	18.5	119	2.8	143	3.0	145	5
110	17.8	159	2.7	193	2.9	199	4
111	16.6	226	2.7	193	2.9	199	4
112	20.2	48	2.8	143	3.0	145	6
113	19.5	71	3.1	26	3.3	29	7
114	18.4	124	3.1	26	3.4	7	7
115	15.9	251	3.2	8	3.4	7	7
116	20.9	31	2.8	143	3.0	145	6
117	18.7	103	2.7	193	2.9	199	7
118	19.4	74	2.7	193	2.9	199	6
119	18.6	111	2.8	143	3.0	145	3
120	19.1	85	2.8	143	3.1	92	5
121	17.5	177	2.8	143	3.0	145	4
122	15.2	269	3.0	48	3.2	52	5
123	19.9	54	2.6	236	2.8	241	6
124	20.5	39	2.7	193	2.9	199	6
126	18.5	119	2.8	143	3.0	145	3
127	18.5	119	2.6	236	2.9	199	4
128	19.3	77	2.7	193	2.9	199	4
129	17.8	159	2.8	143	3.0	145	4
130	18.1	138	2.7	193	3.0	145	3
131	20.7	35	2.9	90	3.1	92	8
132	20.3	43	2.9	90	3.1	92	7
133	18.5	119	3.0	48	3.2	52	6
134	19.7	60	2.7	193	2.9	199	7
135	20.1	51	2.8	143	3.0	145	7
136	17.9	151	2.8	143	3.0	145	7
137	18.8	97	2.9	90	3.1	92	7
138	19.0	90	3.0	48	3.2	52	7
139	18.2	133	2.7	193	2.9	199	6
140	16.5	231	3.0	48	3.2	52	5
141	17.9	151	2.8	143	3.0	145	6
142	17.8	159	2.8	143	3.1	92	5
143	19.0	90	2.8	143	3.0	145	6
144	18.0	144	2.9	90	3.1	92	5
145	19.7	60	2.8	143	3.1	92	7
146	20.9	31	2.9	90	3.1	92	7
147	18.8	97	2.9	90	3.1	92	6
148	16.9	213	2.9	90	3.1	92	6
149	16.8	218	2.9	90	3.1	92	6
150	16.2	244	3.0	48	3.2	52	6
151	14.9	271	3.0	48	3.2	52	3
152	17.5	177	2.9	90	3.1	92	4
153	16.6	226	2.7	193	2.9	199	3

Table 11. Protein and lysine values together with seed grade for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Seed grade 1-9
154	18.1	138	2.7	193	2.9	199	4
155	18.1	138	2.7	193	2.9	199	5
156	16.7	223	2.8	143	3.0	145	3
157	17.6	170	2.7	193	3.0	145	3
158	18.6	111	3.0	48	3.2	52	5
159	18.3	128	2.9	90	3.1	92	6
160	19.7	60	2.9	90	3.1	92	7
162	17.0	204	2.6	236	2.8	241	4
163	21.4	21	3.0	48	3.1	92	9
164	20.2	48	2.7	193	2.9	199	7
165	20.2	48	2.7	193	2.9	199	6
166	24.6	1	2.8	143	3.0	145	9
167	23.8	3	2.9	90	3.0	145	7
168	24.0	2	2.8	143	3.0	145	7
169	21.8	17	2.7	193	2.9	199	7
170	19.0	90	3.0	48	3.2	52	8
171	18.4	124	3.0	48	3.2	52	9
173	19.3	77	3.1	26	3.3	29	9
174	18.0	144	3.1	26	3.3	29	9
175	16.0	249	3.3	3	3.5	4	9
176	17.2	192	3.2	8	3.4	7	9
177	16.5	231	3.2	8	3.4	7	9
178	16.8	218	3.4	1	3.6	1	9
179	18.0	144	2.9	90	3.1	92	7
180	18.7	103	2.9	90	3.1	92	5
181	21.3	23	2.9	90	3.1	92	6
182	20.5	39	3.1	26	3.3	29	6
183	19.5	71	2.9	90	3.1	92	6
184	22.4	10	2.6	236	2.8	241	6
185	22.0	14	2.7	193	2.9	199	6
186	19.2	81	2.9	90	3.1	92	5
187	19.3	77	3.0	48	3.2	52	9
188	16.5	231	3.2	8	3.4	7	9
189	17.1	195	3.2	8	3.4	7	7
190	15.6	260	3.2	8	3.4	7	7
191	17.4	183	3.0	48	3.4	7	7
192	17.6	170	3.0	48	3.2	52	8
193	16.8	218	3.0	48	3.2	52	7
194	19.1	85	3.1	26	3.3	29	9
195	17.3	188	3.0	48	3.2	52	7
196	18.4	124	3.0	48	3.2	52	7
197	22.1	13	3.0	48	3.2	52	9
198	17.4	183	3.2	8	3.4	7	9
199	16.5	231	3.1	26	3.3	29	9
200	17.8	159	3.2	8	3.4	7	9
201	18.6	111	2.6	236	2.8	241	4
202	14.9	271	2.8	143	3.0	145	4
203	17.6	170	2.6	236	2.8	241	3
204	16.7	223	3.1	26	3.3	29	9
205	19.9	54	3.1	26	3.3	29	7

Table 11. Protein and lysine values together with seed grade for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein		Seed grade
	%	rank	%	rank	%	rank	1-9
206	18.2	133	3.1	26	3.3	29	8
207	18.4	124	3.1	26	3.3	29	9
208	17.8	159	3.2	8	3.4	7	9
209	17.7	165	3.1	26	3.4	7	9
210	17.2	192	3.1	26	3.3	29	9
211	15.3	268	3.2	8	3.4	7	9
212	16.7	223	3.3	3	3.5	4	9
213	16.5	231	3.1	26	3.3	29	9
214	17.8	159	3.2	8	3.4	7	9
215	19.0	90	3.2	8	3.4	7	9
216	16.5	231	2.9	90	3.1	92	6
217	20.6	37	2.8	143	3.0	145	6
218	19.4	74	2.8	143	3.0	145	6
219	20.2	48	2.9	90	3.1	92	7
220	19.1	85	2.9	90	3.1	92	6
221	21.6	20	2.7	193	2.9	199	6
222	20.6	37	2.8	143	3.0	145	6
223	21.9	15	2.9	90	3.1	92	7
224	22.2	11	3.0	48	3.2	52	7
225	21.2	26	2.9	90	3.1	92	7
226	23.2	5	2.7	193	2.9	199	7
227	21.7	18	2.9	90	3.1	92	7
228	22.2	11	2.8	143	3.0	145	7
229	21.1	28	2.7	193	2.9	199	6
230	20.9	31	2.7	193	2.9	199	7
231	20.7	35	2.7	193	2.9	199	6
232	19.6	66	2.8	143	3.0	145	6
233	21.3	23	2.8	143	3.0	145	6
234	22.9	8	2.8	143	3.0	145	7
235	23.3	4	2.9	90	3.0	145	7
236	21.2	26	2.8	143	3.0	145	7
237	19.6	66	3.0	48	3.2	52	6
238	18.3	128	3.2	8	3.4	7	6
239	18.0	144	3.1	26	3.3	29	8
241	14.7	273	3.0	48	3.1	92	5
242	15.5	264	2.7	193	2.9	199	4
243	17.0	204	3.0	48	3.2	52	6
244	14.1	274	3.3	3	3.4	7	5
245	17.8	159	3.1	26	3.3	29	6
246	17.0	204	3.3	3	3.6	1	6
247	17.0	204	3.2	8	3.4	7	6
248	15.8	254	3.1	26	3.3	29	6
249	18.6	111	3.0	48	3.3	29	7
250	16.4	236	3.3	3	3.5	4	7
251	15.0	270	3.2	8	3.4	7	6
252	16.7	223	3.1	26	3.3	29	7
253	15.4	267	3.4	1	3.6	1	7
254	15.7	256	3.2	8	3.4	7	6
255	17.0	204	3.0	48	3.2	52	8
256	15.8	254	3.0	48	3.2	52	6

Table 11. Protein and lysine values together with seed grade for the entries in the first high protein-high lysine nursery grown at Suwon, Korea in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Seed grade 1-9
257	18.6	111	2.8	143	3.0	145	6
258	15.5	264	3.0	48	3.2	52	7
259	18.6	111	3.0	48	3.3	29	8
260	15.8	254	3.0	48	3.2	52	6
261	18.7	103	2.5	269	2.7	269	6
262	17.8	159	2.6	236	2.9	199	4
264	18.0	144	2.7	193	2.9	199	4
265	19.2	81	2.6	236	2.8	241	5
266	17.5	177	2.5	269	2.8	241	3
267	17.5	177	2.6	236	2.8	241	5
268	16.3	241	2.7	193	2.9	199	4
269	16.9	213	2.8	143	3.0	145	3
270	17.3	188	2.6	236	2.8	241	3
271	17.3	188	2.6	236	2.8	241	3
272	17.0	204	2.6	236	2.8	241	4
273	16.9	213	2.7	193	2.9	199	4
274	18.0	144	2.6	236	2.9	199	4
275	17.3	188	2.6	236	2.8	241	3
276	19.5	71	2.6	236	2.9	199	3
277	16.5	231	2.8	143	3.0	145	4
278	18.8	97	2.6	236	2.8	241	5
279	15.5	264	2.7	193	2.9	199	5
280	16.3	241	2.7	193	2.9	199	4

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.31**	-.32**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
CI13449	19.6	3.0	3.2
Atlas 66	18.4	2.7	2.9
Bezostaya 1	17.9	2.6	2.8
Centurk	17.3	2.9	3.1
Lancota	16.7	2.6	2.8
CR8156	15.9	2.8	3.0
Overall means	17.6	2.8	3.0
$LSD_{.05}$ of the means	2.0	0.2	0.1
Coefficient of variation (%)	7.5	3.5	3.1

Table 12. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Tel-Amara, Lebanon in 1975.[1/]

Entry no.[2/]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
3	12.9	102	3.4	4	3.5	5
4	14.0	84	3.5	1	3.6	1
5	14.8	60	3.0	40	3.1	49
6	14.2	78	3.2	13	3.3	14
7	14.8	61	3.2	13	3.3	14
8	15.0	53	2.9	66	3.1	49
9	13.0	100	3.1	25	3.2	28
10	13.3	97	3.1	25	3.2	28
12	16.2	20	2.9	66	3.1	49
13	16.0	26	2.9	66	3.1	49
19	17.2	7	2.8	83	3.0	80
21	14.1	82	3.1	25	3.2	28
22	15.0	54	2.9	66	3.1	49
23	14.1	83	3.0	40	3.1	49
24	15.6	34	2.9	66	3.1	49
27	17.2	8	2.7	95	2.9	94
28	15.9	27	3.0	40	3.2	28
29	16.2	21	2.9	66	3.0	80
30	16.1	24	2.9	66	3.1	49
32	15.5	38	3.0	40	3.2	28
33	15.1	49	2.9	66	3.1	49
34	15.1	50	3.1	25	3.2	28
35	15.4	42	3.0	40	3.2	28
36	15.1	51	3.0	40	3.1	49
37	15.3	43	3.0	40	3.1	49
43	15.5	39	2.9	66	3.1	49
52	16.2	22	3.0	40	3.2	28
54	15.5	40	3.0	40	3.2	28
55	14.3	72	3.1	25	3.2	28
56	13.7	92	3.2	13	3.3	14
57	13.9	87	3.2	13	3.3	14
61	14.3	73	3.3	7	3.4	8
62	13.9	88	3.1	25	3.2	28
64	15.9	28	2.9	66	3.1	49
67	14.9	55	2.9	66	3.1	49
68	14.9	56	3.0	40	3.2	28
69	17.1	10	2.7	95	2.9	94
70	13.9	89	3.1	25	3.2	28
71	13.6	93	3.2	13	3.3	14
78	15.1	52	3.2	13	3.4	8
79	13.5	94	3.0	40	3.1	49
80	14.4	67	3.2	13	3.4	8
82	17.2	9	2.7	95	2.9	94
85	14.2	79	3.2	13	3.3	14
87	15.3	44	3.0	40	3.2	28
88	14.9	57	3.0	40	3.2	28
89	13.4	96	3.1	25	3.2	28
90	14.6	65	3.0	40	3.1	49
91	15.2	46	3.0	40	3.1	49
92	13.3	98	3.2	13	3.3	14

[1/] Only 105 of the 280 entries in the nursery were harvested.

[2/] Entries 161, 241 are Centurk; 82, 162, 242 are Lancota; 3, 243 are *CI13449*; 43, 123, 203, 280 are Bezostaya 1.

Table 12. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Tel-Amara, Lebanon in 1975.[1] Concluded.

Entry no.[2]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
95	15.3	45	3.1	25	3.3	14
96	14.4	68	3.0	40	3.2	28
100	13.8	90	3.2	13	3.3	14
101	14.4	69	3.1	25	3.3	14
107	14.9	58	3.0	40	3.1	49
108	15.6	35	2.9	66	3.1	49
109	15.6	36	2.8	83	3.0	80
110	16.9	11	2.8	83	3.0	80
123	16.4	16	2.6	104	2.8	104
127	15.6	37	3.0	40	3.1	49
132	14.3	74	3.3	7	3.4	8
133	17.4	6	3.1	25	3.3	14
134	14.7	62	3.0	40	3.1	49
136	14.7	63	3.1	25	3.2	28
138	14.2	80	3.1	25	3.2	28
141	14.3	75	3.0	40	3.1	49
147	15.2	47	3.1	25	3.3	14
148	14.3	76	3.0	40	3.1	49
149	14.4	70	3.0	40	3.1	49
151	14.2	81	2.9	66	3.0	80
152	14.7	64	2.9	66	3.1	49
153	14.3	77	2.9	66	3.0	80
154	16.4	17	2.8	83	3.0	80
156	14.9	59	2.8	83	2.9	94
159	14.5	66	3.0	40	3.1	49
160	12.2	105	3.3	7	3.2	28
161	12.3	104	3.1	25	3.1	49
162	16.7	13	2.8	83	3.0	80
164	15.7	32	3.0	40	3.1	49
165	16.3	18	3.0	40	3.2	28
195	15.2	48	3.2	13	3.4	8
203	16.2	23	2.8	83	3.0	80
241	13.0	101	3.0	40	3.1	49
242	15.8	29	2.8	83	3.0	80
243	12.7	103	3.3	7	3.3	14
244	13.8	91	3.3	7	3.4	8
245	13.5	95	3.5	1	3.6	1
246	13.3	99	3.5	1	3.6	1
247	14.0	85	3.4	4	3.5	5
248	14.4	71	3.3	7	3.5	5
249	14.0	86	3.4	4	3.6	1
250	15.8	30	3.2	13	3.4	8
261	18.2	1	2.7	95	2.9	94
262	17.9	2	2.9	66	3.1	49
264	16.6	14	2.8	83	3.0	80
265	16.1	25	2.7	95	2.9	94
267	16.9	12	2.7	95	2.9	94
270	16.6	15	2.8	83	3.0	80
271	17.5	5	2.8	83	3.1	49
272	16.3	19	2.7	95	2.9	94
273	17.8	3	2.7	95	2.9	94
275	15.5	41	2.8	83	3.0	80
276	17.6	4	2.7	95	2.9	94
277	15.7	33	2.9	66	3.0	80
280	15.8	31	2.5	105	2.6	105

Table 13. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown in Kathmandu, Nepal in 1975.

Entry no.[1]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	14.0	60	3.0	128	3.1	113
2	14.9	37	2.8	203	3.0	182
3	11.6	195	3.3	28	3.3	24
4	11.6	195	3.2	54	3.1	113
5	13.6	77	3.0	128	3.1	113
7[2]	13.1	103	3.2	54	3.2	54
8	14.0	60	3.0	128	3.1	113
9	11.1	211	3.3	28	3.1	113
10	12.1	166	3.3	28	3.3	24
11	11.6	195	3.4	13	3.3	24
12	16.5	10	2.8	203	3.0	182
13	15.5	26	2.9	179	3.1	113
14	12.9	116	3.2	54	3.2	54
15	12.8	125	3.1	95	3.1	113
16	12.2	162	3.2	54	3.2	54
17	12.3	156	3.1	95	3.1	113
18	12.6	135	3.2	54	3.2	54
19	14.7	43	2.9	179	3.1	113
20	13.6	77	3.0	128	3.1	113
21	13.0	109	3.1	95	3.1	113
22	13.4	91	3.0	128	3.1	113
23	13.1	103	3.0	128	3.1	113
24	13.2	98	3.2	54	3.3	24
25	13.5	84	3.0	128	3.1	113
26	14.0	60	2.8	203	3.0	182
27	14.9	37	2.9	179	3.1	113
28	14.4	49	3.2	54	3.3	24
29	14.4	49	3.0	128	3.1	113
30	14.2	55	3.1	95	3.2	54
31	14.4	49	3.0	128	3.1	113
32	13.5	84	3.1	95	3.2	54
34	12.8	125	3.1	95	3.2	54
35	12.3	156	3.2	54	3.2	54
36	11.9	180	3.3	28	3.3	24
37	12.5	142	3.1	95	3.1	113
38	14.0	60	3.0	128	3.1	113
39	13.7	72	3.0	128	3.1	113
40	13.8	68	3.0	128	3.1	113
41	15.1	33	2.9	179	3.1	113
43	13.5	84	3.0	128	3.1	113
44	13.5	84	3.1	95	3.2	54
45	13.4	91	3.0	128	3.0	182
46	12.5	142	3.2	54	3.2	54
47	13.5	84	3.0	128	3.1	113
48	13.0	109	3.2	54	3.2	54
49	13.9	64	3.0	128	3.1	113
50	12.4	149	3.0	128	3.0	182

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 278 are Atlas 66; 43, 123, 203, 280 are Bezostaya 1.

[2] Missing entries were not harvested.

Table 13. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown in Kathmandu, Nepal in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
51	14.7	43	2.8	203	3.0	182
52	15.2	29	2.9	179	3.1	113
53	15.6	23	2.7	215	2.9	210
54	12.4	149	3.2	54	3.2	54
55	12.7	130	3.1	95	3.1	113
56	12.2	162	3.2	54	3.2	54
57	12.9	116	3.0	128	3.0	182
58	12.0	171	3.3	28	3.2	54
59	11.2	207	3.4	13	3.2	54
60	12.4	149	3.2	54	3.2	54
61	12.4	149	3.2	54	3.2	54
62	11.9	180	3.3	28	3.2	54
63	12.2	162	3.3	28	3.2	54
64	12.5	142	3.2	54	3.2	54
66	12.0	171	3.2	54	3.1	113
67	11.9	180	3.1	95	3.1	113
68	12.3	156	3.2	54	3.2	54
69	12.1	166	3.2	54	3.2	54
70	12.9	116	2.9	179	2.9	210
71	11.5	200	3.3	28	3.2	54
72	11.9	180	3.3	28	3.2	54
73	11.4	202	3.3	28	3.2	54
75	13.4	91	3.1	95	3.1	113
76	12.7	130	3.2	54	3.3	24
77	13.7	72	3.1	95	3.2	54
78	11.4	202	3.4	13	3.3	24
79	14.1	58	2.9	179	3.1	113
80	12.8	125	3.2	54	3.2	54
81	12.6	135	3.0	128	3.0	182
82	12.9	116	3.0	128	3.0	182
83	10.6	215	3.5	3	3.3	24
84	13.7	72	3.0	128	3.1	113
85	13.8	68	3.1	95	3.2	54
86	15.2	29	2.9	179	3.1	113
87	14.7	43	2.8	203	2.9	210
88	14.7	43	2.9	179	3.0	182
89	12.9	116	3.1	95	3.1	113
90	11.9	180	3.1	95	3.0	182
91	13.9	64	2.9	179	3.1	113
92	13.3	95	3.0	128	3.1	113
93	11.9	180	3.2	54	3.2	54
94	12.3	156	3.0	128	3.0	182
95	12.3	156	3.3	28	3.3	24
96	12.6	135	3.1	95	3.1	113
97	13.2	98	2.8	203	2.9	210
98	12.7	130	3.2	54	3.2	54
99	13.9	64	3.0	128	3.1	113
100	11.3	204	3.2	54	3.0	182

Table 13. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown in Kathmandu, Nepal in 1975. Continued.

Entry no. 2/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
101	12.3	156	3.2	54	3.2	54
102	14.4	49	3.2	54	3.3	24
103	15.7	20	2.9	179	3.1	113
104	15.6	23	2.8	203	3.0	182
105	16.4	12	3.0	128	3.2	54
106	16.5	10	2.9	179	3.1	113
107	13.5	84	3.1	95	3.2	54
108	16.2	14	3.1	95	3.3	24
109	15.2	29	3.1	95	3.2	54
110	16.8	7	2.9	179	3.1	113
111	17.0	5	2.9	179	3.1	113
112	17.4	4	2.8	203	3.0	182
113	14.9	37	3.2	54	3.4	8
114	15.1	33	3.1	95	3.3	24
116	13.9	64	3.2	54	3.3	24
117	14.7	43	2.9	179	3.1	113
118	15.6	23	3.0	128	3.2	54
120	15.1	33	2.9	179	3.1	113
121	15.5	26	3.0	128	3.2	54
123	13.6	77	3.1	95	3.2	54
124	14.2	55	3.1	95	3.3	24
125	15.6	23	2.8	203	3.0	182
126	16.0	17	3.0	128	3.2	54
127	15.2	29	3.0	128	3.1	113
128	15.8	19	2.9	179	3.1	113
129	15.9	18	2.8	203	3.0	182
130	14.8	39	3.1	95	3.2	54
131	14.3	52	3.0	128	3.2	54
132	13.5	84	3.1	95	3.2	54
133	12.5	142	3.2	54	3.2	54
135	13.6	77	3.0	128	3.1	113
136	12.8	125	3.1	95	3.1	113
137	12.6	135	3.2	54	3.2	54
138	12.2	162	3.2	54	3.2	54
139	12.5	142	3.0	128	3.0	182
140	12.3	156	3.1	95	3.1	113
141	11.7	190	3.2	54	3.1	113
142	11.6	195	3.1	95	3.1	113
143	12.3	156	3.0	128	3.0	182
144	10.9	213	3.3	28	3.1	113
145	11.6	195	3.3	28	3.2	54
146	12.0	171	3.3	28	3.3	24
147	11.7	190	3.2	54	3.1	113
148	12.8	125	3.2	54	3.2	54
149	11.2	207	3.2	54	3.1	113
150	13.0	109	3.2	54	3.2	54

Table 13. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown in Kathmandu, Nepal in 1975. Continued.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
151	13.1	103	3.0	128	3.1	113
152	11.8	186	3.1	95	3.1	113
153	13.3	95	3.0	128	3.1	113
154	14.3	52	2.8	203	2.9	210
155	13.1	103	3.0	128	3.0	182
156	12.1	166	3.1	95	3.1	113
157	13.1	103	3.0	128	3.0	182
158	11.2	207	3.2	54	3.1	113
159	12.9	116	3.0	128	3.1	113
160	11.1	211	3.2	54	3.1	113
161	12.9	116	3.0	128	3.1	113
162	12.6	135	2.9	179	2.9	210
163	11.5	200	3.5	3	3.4	8
164	13.2	98	3.0	128	3.0	182
165	13.7	72	3.0	128	3.1	113
166	15.1	33	3.2	54	3.3	24
167	16.4	12	3.1	95	3.3	24
168	16.5	10	3.0	128	3.2	54
169	17.9	2	2.9	179	3.1	113
170	11.8	186	3.5	3	3.4	8
171	11.8	186	3.5	3	3.5	4
172	13.4	91	3.3	28	3.4	8
173	12.9	116	3.3	28	3.3	24
174	11.5	200	3.4	13	3.4	8
175	12.0	171	3.3	28	3.2	54
176	11.9	180	3.5	3	3.4	8
177	12.0	171	3.1	95	3.0	182
178	11.7	190	3.3	28	3.2	54
179	11.7	190	4.0	1	3.9	1
180	17.6	3	3.0	128	3.2	54
185	18.9	1	2.9	179	3.2	54
187	14.7	43	3.0	128	3.1	113
188	13.1	103	3.2	54	3.3	24
189	13.4	91	3.3	28	3.4	8
191	12.0	171	3.3	28	3.2	54
192	12.5	142	3.0	128	3.0	182
193	12.9	116	3.3	28	3.3	24
194	13.0	109	3.2	54	3.3	24
195	13.7	72	3.6	2	3.7	2
196	14.7	43	3.0	128	3.1	113
197	15.6	23	3.0	128	3.2	54
198	12.5	142	3.3	28	3.3	24
199	13.0	109	3.4	13	3.4	8
200	13.6	77	3.0	128	3.1	113
203	13.8	68	2.9	179	3.0	182
204	13.3	95	3.3	28	3.4	8
205	12.8	125	3.5	3	3.6	3
207	12.8	125	3.3	28	3.4	8
208	12.7	130	3.2	54	3.2	54
209	12.0	171	3.4	13	3.3	24

Table 13. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown in Kathmandu, Nepal in 1975. Concluded.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
210	12.0	171	3.3	28	3.3	24
211	11.3	204	3.4	13	3.2	54
212	11.6	195	3.4	13	3.4	8
213	10.9	213	3.5	3	3.3	24
214	11.9	180	3.4	13	3.4	8
215	11.9	180	3.4	13	3.3	24
217	16.9	6	3.0	128	3.2	54
219	16.1	15	2.9	179	3.1	113
220	14.2	55	3.1	95	3.3	24
240	12.4	149	3.5	3	3.5	4
241	13.6	77	3.0	128	3.1	113
242	13.5	84	2.9	179	3.0	182
243	11.1	211	3.4	13	3.3	24
245	12.5	142	3.4	13	3.4	8
247	12.9	116	3.4	13	3.5	4
248	14.2	55	3.1	95	3.3	24
249	13.2	98	3.4	13	3.5	4
250	12.3	156	3.4	13	3.4	8
253	11.2	207	3.5	3	3.4	8
254	11.7	190	3.5	3	3.4	8
256	16.1	15	3.0	128	3.2	54
260	12.6	135	3.2	54	3.2	54
278	16.6	8	2.9	179	3.1	113
280	14.7	43	2.8	203	3.0	182

	Correlation Coefficient	
	Lysine/protein	Adjusted/ lysine/protein
Protein	-.67**	-.25*

*,** Significant at the .05 and .01 levels respectively.

Variety	Means of the check varieties		
	Protein %	Lysine/protein %	Adjusted lysine/protein %
Atlas 66	15.7	2.9	3.1
Bezostaya 1	13.9	3.0	3.1
Lancota	13.8	2.9	3.0
Centurk	13.4	3.0	3.1
CI13449	11.1	3.4	3.3
Overall means	13.6	3.0	3.1
$LSD_{.05}$ of the means	1.2	0.1	0.1
Coefficient of variation	4.9	1.8	1.7

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975.

Entry no.[1]	Protein		Lysine/protein		Adjusted lysine		Stripe rust		
							June 9		July 4
	%	rank	%	rank	%	rank	sev.	resp.	sev.
							%		%
1	9.1	273	3.5	6	3.1	88	5	HM	--
2	12.5	147	2.9	199	2.9	209	1	MR	--
3	9.0	275	3.4	19	3.0	159	10	MR	--
4	10.5	244	3.5	6	3.2	46	5	VS	--
5	13.0	131	3.1	112	3.1	88	2	VR	--
6	9.5	269	3.5	6	3.1	88	10	S	--
7	10.7	233	3.3	44	3.1	88	10	MS	--
8	11.2	214	3.2	74	3.1	88	3	HM	--
9	8.6	277	3.6	1	3.1	88	2	S	--
10	9.9	262	3.4	19	3.1	88	10	S	--
11	9.7	266	3.5	6	3.1	88	20	S	--
12	13.9	95	3.0	156	3.2	46	20	VS	--
13	12.0	167	3.3	44	3.2	46	40	VS	--
14	12.1	164	3.3	44	3.2	46	30	S	--
15	10.4	247	3.4	19	3.2	46	30	VS	--
16	11.5	193	3.2	74	3.1	88	40	VS	--
17	12.1	164	3.2	74	3.1	88	30	VS	--
18	13.4	114	3.0	156	3.1	88	30	VS	--
19	15.6	51	2.7	249	2.9	209	5	VS	--
20	11.2	214	3.2	74	3.1	88	40	VS	--
21	11.8	174	3.0	156	2.9	209	10	VS	--
22	13.2	125	3.0	156	3.1	88	10	VS	--
23	12.1	164	3.0	156	3.0	159	20	MS	--
24	11.1	220	3.1	112	3.0	159	30	VS	--
25	13.8	99	3.2	74	3.3	24	10	VS	--
26	11.4	199	3.1	112	3.0	159	10	VS	--
27	17.1	24	2.7	249	2.9	209	30	VS	--
28	12.8	135	3.0	156	3.0	159	30	S	--
29	16.2	38	2.8	225	3.0	159	30	VS	--
30	14.5	75	3.0	156	3.1	88	40	VS	--
31	17.1	24	2.9	199	3.1	88	30	VS	--
32	13.9	95	3.2	74	3.3	24	40	VS	--
33	14.0	90	3.1	112	3.2	46	60	VS	--
34	11.6	187	3.4	19	3.4	10	70	VS	--
35	11.8	174	3.3	44	3.2	46	70	VS	--
36	11.5	193	3.4	19	3.3	24	80	VS	--
37	12.6	144	3.4	19	3.4	10	80	VS	--
38	14.6	73	2.7	249	2.9	209	60	MS	--
39	13.3	120	2.7	249	2.8	254	20	VS	--
40	12.6	144	2.8	225	2.9	209	20	MS	--
41	10.6	238	3.1	112	2.9	209	10,20	HM,VS	--
42	9.2	272	3.3	44	2.8	254	30	VS	--
43	9.5	269	3.1	112	2.7	275	2	VS	--
44	13.7	102	2.9	199	3.0	159	40	LM	--
45	18.1	11	2.7	249	2.9	209	5	MS	--
46	14.4	78	2.8	225	2.9	209	10	VS	--
47	15.7	47	2.7	249	2.9	209	10	MS	--
48	15.6	51	2.7	249	2.9	209	20	MS	--
49	13.6	107	2.9	199	3.0	159	50	VS	--
50	10.6	238	3.2	74	3.0	159	80	VS	--

[1] Entries 1, 81, 161 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122,202, 279 are CR8156; 43, 123,203 are Bezostaya 1.

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975. Continued.

Entry no.[1/]	Protein		Lysine/protein		Adjusted lysine		Stripe rust		
							June 9		July 4
	%	rank	%	rank	%	rank	sev. %	resp.	sev. %
51	13.3	120	3.1	112	3.2	46	60	MS	--
52	14.0	90	2.9	199	3.1	88	50	HM	--
53	11.3	207	3.0	156	2.9	209	10	VR	--
54	11.3	207	3.1	112	2.9	209	60	MS	--
55	11.7	180	3.0	156	2.9	209	60	MS	--
56	10.8	229	3.2	74	3.1	88	60	VS	--
57	10.3	250	3.3	44	3.1	88	60	VS	--
58	11.3	207	3.1	112	3.0	159	40	VS	--
59	11.1	220	3.1	112	3.0	159	40	MS	--
60	10.8	229	3.2	74	3.0	159	10	MR	--
61	10.3	250	3.4	19	3.1	88	30	MS	--
62	9.6	268	3.5	6	3.1	88	10	MR	--
63	11.8	174	3.2	74	3.1	88	20	HM	--
64	12.3	155	3.1	112	3.1	88	5	VR	--
65	11.3	207	3.0	156	2.9	209	3	MR	--
66	10.8	229	3.1	112	2.9	209	2	MR	--
67	10.1	256	3.3	44	3.0	159	10	MS	--
68	11.3	207	3.1	112	3.0	159	10	VS	--
69	11.5	193	3.2	74	3.1	88	10	MS	--
70	11.4	199	2.9	199	2.8	254	5	MS	--
71	10.0	259	3.3	44	3.0	159	30	VR	--
72	9.3	271	3.6	1	3.2	46	30	VS	--
73	11.4	199	3.2	74	3.1	88	30	M	--
74	10.1	256	3.3	44	3.0	159	30	MS	--
75	11.6	187	3.1	112	3.0	159	40	VS	--
76	11.5	193	3.2	74	3.1	88	30	VS	--
77	11.2	214	3.2	74	3.1	88	40	MS	--
78	10.5	244	3.4	19	3.1	88	20	VS	--
79	10.6	238	3.0	156	2.8	254	30	VR	--
80	10.2	253	3.4	19	3.1	88	10	VS	--
81	9.8	264	3.4	19	3.1	88	20	VS	--
82	11.1	220	3.0	156	2.9	209	3	MR	--
83	8.7	276	3.5	6	3.0	159	5	MS	--
84	10.1	256	3.5	6	3.3	24	20	VS	--
85	11.4	199	3.2	74	3.1	88	20	VS	--
86	11.9	169	2.9	199	2.9	209	30	VR	--
87	13.9	95	2.8	225	2.9	209	10,10	VR,HM	--
88	11.7	180	2.9	199	2.8	254	20	VS	--
89	11.3	207	2.8	225	2.7	275	20	VS	--
90	10.2	253	3.1	112	2.8	254	20	MS	--
91	10.2	253	3.1	112	2.9	209	40	VS	--
92	11.3	207	3.2	74	3.1	88	50	VS	--
93	10.1	256	3.3	44	3.0	159	70	VS	--
94	10.9	227	3.2	74	3.1	88	60	VS	--
95	11.7	180	3.1	112	3.0	159	40	VS	--
96	11.4	199	3.0	156	2.9	209	20	MS	--
97	11.8	174	3.0	156	2.9	209	10	MR	--
98	9.1	273	3.2	74	2.7	275	30,30	VR,MR	--
99	10.6	238	3.0	156	2.8	254	5	VR	--
100	9.7	266	3.3	44	2.9	209	20	VR	--

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975. Continued.

Entry no.1/	Protein		Lysine/protein		Adjusted lysine		Stripe rust		
							June 9		July 4
	%	rank	%	rank	%	rank	sev. %	resp.	sev. %
101	9.9	262	3.2	74	2.9	209	30	VR	--
102	10.8	229	3.3	44	3.1	88	20	MS	--
103	10.6	238	3.1	112	2.9	209	20	LM	--
104	10.4	247	3.4	19	3.2	46	30	VS	--
105	11.3	207	3.1	112	3.0	159	30	MS	--
106	11.0	225	3.2	74	3.1	88	20	VS	--
107	9.7	266	3.2	74	2.9	209	20	VS	--
108	11.8	174	3.1	112	3.0	159	20	MS	--
109	10.6	238	3.1	112	2.8	254	40	VS	--
110	14.0	90	3.0	156	3.1	88	30	VS	--
111	13.5	111	3.0	156	3.1	88	30	VS	--
112	14.1	86	2.9	199	3.0	159	20,20	VR,MR	--
113	11.7	180	3.3	44	3.2	46	10	MS	--
114	11.0	225	3.4	19	3.3	24	10	VR	--
115	12.7	139	3.1	112	3.1	88	5	VR	--
116	10.5	244	3.3	44	3.1	88	30	VS	--
117	11.2	214	3.1	112	3.0	159	20	VR	--
118	12.4	149	3.1	112	3.1	88	30	VS	--
119	14.1	86	2.8	225	3.0	159	20	VR	--
120	12.6	144	3.0	156	3.0	159	20	VS	--
121	12.3	155	3.1	112	3.1	88	5	MR	--
122	11.4	199	3.1	112	3.0	159	40	MS	--
123	12.3	155	2.9	199	2.9	209	30	MS	--
124	13.3	120	3.1	172	3.1	88	20	MS	--
125	14.2	82	2.8	225	2.9	209	50	VS	--
126	13.6	107	3.1	112	3.2	46	40	VS	--
127	14.6	73	2.7	249	2.8	254	3,40	MR,VS	--
128	12.3	155	3.3	44	3.2	46	60	VS	--
129	13.8	99	2.9	199	3.0	159	80	VS	--
130	12.4	149	3.1	112	3.1	88	80	VS	--
131	12.0	167	3.2	74	3.1	88	30	MS	--
132	11.4	199	3.1	112	3.0	159	20	MS	--
133	11.6	187	3.1	112	3.0	159	20	VS	--
134	11.6	187	3.3	44	3.2	46	10	VS	--
135	10.4	247	3.3	44	3.1	88	5	VS	--
136	12.6	144	3.2	74	3.2	46	10	VS	--
137	11.1	220	3.4	19	3.3	24	5	VS	--
138	9.9	262	3.5	6	3.2	46	10	VS	--
139	10.7	233	3.3	44	3.1	88	10	VS	--
140	11.4	199	3.3	44	3.2	46	30	VS	--
141	10.0	259	3.6	1	3.3	24	40	VS	--
142	11.9	169	3.4	19	3.4	10	60	VS	--
143	11.7	180	3.4	19	3.3	24	70	VS	--
144	11.1	220	3.5	6	3.4	10	70	VS	--
145	10.6	238	3.4	19	3.2	46	70	VS	--
146	10.7	233	3.4	19	3.2	46	40	VS	--
147	11.2	214	3.0	156	2.9	209	30	VS	--
148	12.7	139	3.1	112	3.1	88	50	HM	--
149	12.2	160	3.3	44	3.3	24	40	VS	--
150	11.6	187	3.3	44	3.2	46	30	VS	--

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975. Continued.

Entry no.[1]	Protein		Lysine/protein		Adjusted lysine		Stripe rust		
							June 9		July 4
	%	rank	%	rank	%	rank	sev. %	resp.	sev. %
151	14.2	82	3.0	156	3.1	88	30	VS	--
152	11.7	180	3.2	74	3.1	88	30,30	VR,VS	--
153	12.7	139	3.2	74	3.2	46	30	VS	--
154	13.1	128	2.8	225	2.9	209	20	HM	--
155	13.2	125	2.9	199	3.0	159	30	VS	--
156	11.8	174	3.1	112	3.1	88	40	VS	--
157	12.7	139	3.1	112	3.1	88	50	VS	--
158	13.2	125	3.2	74	3.3	24	60	VS	--
159	12.2	160	3.1	112	3.1	88	10	VR	--
160	12.3	155	3.0	156	3.0	159	20	VS	--
161	11.6	187	3.1	112	3.0	159	20	MS	--
162	13.9	95	2.8	225	2.9	209	10,10	VR,VS	--
163	10.6	238	3.3	44	3.1	88	30	MS	--
164	11.1	220	3.2	74	3.1	88	10	VR	--
165	13.6	107	2.8	225	2.9	209	10	VR	--
166	11.8	174	3.3	44	3.2	46	10,10	M,MS	--
167	12.4	149	3.2	74	3.2	46	30	MS	--
168	13.4	114	3.1	112	3.2	46	20,20	VR,MR	--
169	15.5	54	2.8	225	2.9	209	2	VR	--
170	12.8	135	3.2	74	3.2	46	20	VS	--
171	11.6	187	3.4	19	3.3	24	30	VS	--
172	12.6	144	3.3	44	3.3	24	30	VS	--
173	12.3	155	3.3	44	3.3	24	30	VS	--
174	13.4	114	3.3	44	3.3	24	20	VS	--
175	10.3	250	3.6	1	3.3	24	30	VS	--
176	11.5	193	3.5	6	3.4	10	20	MS	--
177	12.1	164	3.4	19	3.4	10	70	VS	--
178	11.0	225	3.2	74	3.1	88	60	VS	--
							June 19		
179	13.6	107	3.0	156	3.0	159	1	S	70
180	15.2	60	3.0	156	3.1	88	1	S	40
181	14.4	78	3.0	156	3.2	46	20	S	80
182	14.0	90	2.9	199	3.0	159	20	VS	80
183	14.7	70	3.0	156	3.1	88	20	VS	70
184	17.7	16	2.6	266	2.8	254	10	S	20
185	18.7	7	2.6	266	2.8	254	5	S	10
186	14.5	75	2.9	199	3.1	88	20	VS	80
187	14.3	80	2.9	199	3.0	159	30	HM	90
188	13.0	131	3.0	156	3.0	159	50	HM	100
189	13.4	114	3.1	112	3.2	46	40	VS	100
190	13.4	114	3.0	156	3.1	88	10	S	60
191	13.6	107	3.0	156	3.1	88	20	S	90
192	15.6	51	2.7	249	2.9	209	5	MR	25
193	16.4	34	2.8	225	3.0	159	20	S	80
194	15.8	43	3.0	156	3.2	46	50	S	100
195	15.3	58	3.0	156	3.2	46	30	S	90
196	16.5	32	3.0	156	3.2	46	60	S	90
197	14.8	69	3.2	74	3.3	24	40	VS	90
198	15.0	63	3.2	74	3.3	24	60	S	90
199	13.7	102	3.1	112	3.2	46	20	S	90
200	14.2	82	3.3	44	3.4	10	30	S	80

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine		Stripe rust		
							June 19		July 4
	%	rank	%	rank	%	rank	sev. %	resp.	sev. %
201	13.1	128	2.9	199	3.0	159	1	S	30
202	12.1	164	2.9	199	2.9	209	10	S	40
203	12.7	139	2.8	225	2.8	254	2	S	5
204	13.2	125	3.4	19	3.5	2	30	S	80
205	13.6	107	3.1	112	3.1	88	5	MR	25
206	14.9	66	3.0	156	3.2	46	10	MR	40
207	15.1	61	2.8	225	2.9	209	10	MS	40
208	13.0	131	3.4	19	3.5	2	20	VS	100
209	13.6	107	3.2	74	3.3	24	10	HM	80
210	13.7	102	3.2	74	3.3	24	20	HM	80
211	12.8	135	3.1	112	3.1	88	10	S	80
212	11.1	220	3.5	6	3.4	10	5	HM	70
213	12.3	155	3.4	19	3.4	10	10	HM	80
214	13.3	120	3.3	44	3.4	10	20	VS	90
215	15.4	56	3.2	74	3.4	10	50	S	100
216	13.9	95	3.1	112	3.2	46	20	VS	70
217	18.7	7	2.8	225	3.0	159	10	S	40
218	17.2	21	2.7	249	2.9	209	10	S	70
219	16.8	29	3.0	156	3.2	46	1	MR	40
220	15.3	58	3.0	156	3.2	46	5	S	30
221	17.2	21	2.9	199	3.1	88	20	S	25
222	17.0	27	2.6	266	2.8	254	1	MR	15
223	15.7	47	3.0	156	3.2	46	10	S	70
224	18.6	9	2.9	199	3.1	88	1	MR	10
225	15.6	51	2.9	199	3.1	88	1	VR	5
226	18.0	13	2.7	249	2.9	209	5	S	50
227	16.8	29	3.0	156	3.2	46	10	S	80
228	18.9	6	2.6	266	2.8	254	10	S	40
229	17.0	27	2.8	225	3.0	159	20	S	80
230	15.7	47	2.8	225	3.0	159	5	S	70
231	17.0	27	2.8	225	3.0	159	5	HM	70
232	17.5	19	2.8	225	3.0	159	10	MS	80
233	17.6	18	2.9	199	3.1	88	5	HM	20
234	23.0	1	2.6	266	2.8	254	5	MR	20
235	22.2	2	2.6	266	2.8	254	TR	S	5
236	21.4	3	2.6	266	2.8	254	1	S	40
237	17.9	15	2.9	199	3.2	46	1	MR	10
238	16.5	32	3.0	156	3.2	46	1	MR	15
239	15.8	43	3.2	74	3.4	10	10	VS	90
240	16.4	34	3.0	156	3.2	46	10	S	90
241	--	--	--	--	--	--	--	--	20
242	16.0	39	2.7	249	2.9	209	5	R	20
243	12.2	160	3.6	1	3.5	2	--	--	--
244	13.0	131	3.5	6	3.6	1	20	S	90
245	14.6	73	3.3	44	3.5	2	5	VR	15
246	14.9	66	3.2	74	3.4	10	5	VR	10
247	14.1	86	3.4	19	3.5	2	5	VR	10
248	14.9	66	3.0	156	3.2	46	1	MR	10
249	14.4	78	3.4	19	3.5	2	5	VR	10
250	15.7	47	3.1	112	3.3	24	5	MR	10

Table 14. Protein and lysine data together with stripe rust values for entries in the first high protein, high lysine observation nursery grown at Wageningen, The Netherlands in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine %	Adjusted lysine rank	Stripe rust June 19 sev. %	Stripe rust June 19 resp.	Stripe rust July 4 sev. %
251	14.9	66	3.3	44	3.5	2	10	VS	90
252	14.7	70	3.1	112	3.3	24	10	VR	10
253	12.4	149	3.4	19	3.4	10	10	VR	50
254	13.3	120	3.5	6	3.5	2	10	MR	50
255	14.9	66	3.0	156	3.1	88	10	S	50
256	14.0	90	3.0	156	3.1	88	1	S	15
257	15.9	41	2.8	225	3.0	159	1	S	10
258	13.3	120	3.2	74	3.3	24	10	S	60
259	14.2	82	3.0	156	3.2	46	5	S	60
260	--	--	--	--	--	--	--	--	30
261	18.2	10	2.6	266	2.8	254	1	VR	5
262	15.5	54	2.9	199	3.1	88	1	MR	2
263	15.4	56	2.9	199	3.0	159	1	S	30
264	16.3	36	2.6	266	2.8	254	TR	M	25
265	19.6	4	2.7	249	2.9	209	1	VR	5
266	17.7	16	2.7	249	2.9	209	1	VR	5
267	17.1	24	2.6	266	2.8	254	1	VR	1
268	15.8	43	2.8	225	3.0	159	0	--	0
269	19.0	5	2.7	249	2.9	209	0	--	5
270	15.8	43	2.8	225	2.9	209	0	--	0
271	15.1	61	2.9	199	3.1	88	1	VR	2
272	18.0	13	2.7	249	3.0	159	1	VR	5
273	16.0	39	2.7	249	2.9	209	1	VR	5
274	17.4	20	2.6	266	2.8	254	0	--	2
275	16.3	36	2.8	225	3.0	159	1	VR	5
276	18.0	13	2.6	266	2.9	209	1	VR	1
277	16.6	31	2.8	225	3.0	159	1	VR	5
278	13.8	99	2.9	199	3.1	88	1	VR	1
279	13.4	114	3.0	156	3.1	88	2	VR	10
280	--	--	--	--	--	--	--	--	15

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.74**	-.12*

*,** Significant at the .05 and .01 levels, respectively.

Means of check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Lancota	12.5	2.9	2.9
Atlas 66	12.0	3.1	3.0
Bezostaya 1	11.5	2.9	2.8
CR8156	10.9	3.1	2.9
Centurk	10.2	3.3	3.0
CI13449	9.4	3.4	3.0
Overall means	11.1	3.1	2.9
$LSD_{.05}$ of the means	1.5	0.1	0.1
Coefficient of variation (%)	7.3	2.5	2.5

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975.

Entry no.1/	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	16.8	193	2.6	173	2.8	174
2	18.8	130	2.6	173	2.8	174
4*	16.7	200	3.0	30	3.2	30
5	15.0	248	2.9	61	3.1	62
6	16.1	218	3.0	30	3.2	30
7	15.1	246	3.0	30	3.2	30
8	15.7	235	2.9	61	3.1	62
9	15.5	240	2.9	61	3.1	62
10	15.5	240	2.9	61	3.1	62
11	15.4	243	3.0	30	3.2	30
12	18.7	134	2.8	94	2.9	134
13	17.9	156	2.7	133	2.9	134
14	16.7	200	2.8	94	3.0	94
15	17.5	170	2.6	173	2.8	174
16	17.9	156	2.6	173	2.9	134
17	20.3	69	2.6	173	2.8	174
18	19.9	80	2.6	173	2.8	174
19	21.0	52	2.5	226	2.7	225
20	21.4	42	2.5	226	2.7	225
21	17.9	156	2.6	173	2.8	174
22	15.8	232	2.9	61	3.0	94
23	16.7	200	2.8	94	3.0	94
24	18.8	130	2.6	173	2.8	174
25	17.2	180	2.8	94	3.0	94
26	19.4	106	2.5	226	2.7	225
27	22.1	27	2.5	226	2.7	225
28	15.9	227	2.8	94	3.0	94
29	22.0	29	2.6	173	2.8	174
30	20.9	54	2.6	173	2.8	174
31	21.1	50	2.7	133	2.9	134
32	16.4	208	3.0	30	3.2	30
33	17.9	156	2.8	94	3.0	94
34	15.0	248	2.9	61	3.1	62
35	16.7	200	2.8	94	3.1	62
36	16.5	205	3.0	30	3.2	30
37	16.2	213	2.9	61	3.1	62
38	23.1	14	2.4	250	2.6	250
39	21.6	37	2.6	173	2.8	174
40	21.7	33	2.5	226	2.7	225
41	20.5	64	2.6	173	2.8	174
42	16.0	222	2.7	133	2.9	134
43	19.5	99	2.8	94	3.0	94
44	22.5	22	2.5	226	2.7	225
45	25.9	1	2.5	226	2.7	225
46	22.1	27	2.6	173	2.7	225
47	22.4	24	2.6	173	2.8	174
48	24.6	6	2.6	173	2.8	174
49	20.8	58	2.6	173	2.8	174
50	16.2	213	2.8	94	3.0	94
51	19.0	120	2.9	61	3.1	62

*Missing numbers entries were not harvested.

1/ Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 243 is CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
52	19.7	88	2.6	173	2.8	174
53	19.5	99	2.6	173	2.8	174
54	15.1	246	2.9	61	3.1	62
55	15.7	235	2.9	61	3.0	94
56	14.8	251	3.2	15	3.4	13
57	17.4	174	3.0	30	3.2	30
58	15.9	227	3.0	30	3.2	30
64	17.4	174	3.1	22	3.3	22
65	16.9	187	3.2	15	3.4	13
66	14.8	251	3.1	22	3.2	30
68	13.7	256	3.3	9	3.4	13
69	15.4	243	3.0	30	3.2	30
70	14.2	255	2.9	61	3.0	94
71	15.1	246	2.6	173	2.8	174
72	16.4	208	2.7	133	2.9	134
73	15.9	227	3.0	30	3.1	62
75	20.3	69	2.7	133	2.9	134
76	19.1	116	2.7	133	2.9	134
77	19.5	99	2.9	61	3.1	62
78	17.2	180	3.0	30	3.3	22
79	20.1	74	2.6	173	2.8	174
80	16.9	187	3.2	15	3.4	13
81	19.0	120	2.7	133	2.9	134
82	19.5	99	2.6	173	2.8	174
84	14.7	253	3.0	30	3.2	30
85	16.0	222	2.9	61	3.1	62
86	17.4	174	2.8	94	3.0	94
87	18.4	143	2.6	173	2.9	134
88	17.4	174	2.7	133	2.9	134
89	15.7	235	2.7	133	2.9	134
90	17.2	180	2.7	133	2.9	134
91	16.8	193	2.7	133	2.9	134
92	16.8	193	2.8	94	3.0	94
93	15.9	227	3.1	22	3.3	22
94	19.8	84	2.7	133	2.9	134
95	18.1	149	2.5	226	2.7	225
96	19.2	113	2.4	250	2.6	250
97	17.8	160	2.7	133	2.9	134
98	15.6	237	2.9	61	3.1	62
99	19.5	99	2.4	250	2.7	225
100	18.9	125	2.9	61	3.1	62
101	16.7	200	2.7	133	2.9	134
102	18.6	136	2.6	173	2.8	174
104	21.4	42	2.5	226	2.6	250
105	19.2	113	2.5	226	2.7	225
106	18.8	130	2.5	226	2.7	225
107	19.0	120	2.5	226	2.7	225
108	19.8	84	2.6	173	2.8	174
109	19.6	91	2.6	173	2.8	174
110	20.5	64	2.5	226	2.7	225

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
111	19.8	84	2.7	133	2.9	134
112	19.5	99	2.6	173	2.8	174
113	17.1	183	2.8	94	3.0	94
114	17.6	165	2.8	94	3.0	94
115	16.8	193	2.7	133	2.9	134
116	17.4	174	2.8	94	3.0	94
117	18.9	125	2.6	173	2.8	174
118	19.2	113	2.5	226	2.7	225
119	20.1	74	2.6	173	2.8	174
120	17.6	165	2.7	133	2.9	134
121	20.7	60	2.6	173	2.8	174
122	16.0	222	2.8	94	3.0	94
123	18.3	145	2.7	133	2.9	134
124	19.4	106	2.7	133	2.9	134
125	20.0	78	2.5	226	2.7	225
126	21.4	42	2.6	173	2.8	174
127	19.9	80	2.4	250	2.6	250
128	22.1	27	2.5	226	2.7	225
129	19.6	91	2.7	133	2.9	134
130	20.5	64	2.4	250	2.6	250
131	20.9	54	2.6	173	2.8	174
132	21.9	30	2.7	133	2.9	134
133	19.1	116	2.8	94	3.0	94
134	18.5	139	2.6	173	2.8	174
135	18.0	151	2.7	133	3.0	94
136	18.8	130	2.9	61	3.1	62
137	16.7	200	3.0	30	3.2	30
138	16.8	193	2.9	61	3.1	62
139	17.9	156	3.0	30	3.2	30
140	20.3	69	2.8	94	3.0	94
141	16.8	193	2.8	94	3.0	94
142	16.4	208	2.9	61	3.1	62
143	16.1	218	2.9	61	3.1	62
144	16.7	200	3.0	30	3.2	30
145	15.8	232	3.0	30	3.1	62
146	16.9	187	3.0	30	3.2	30
147	14.9	250	3.0	30	3.2	30
148	19.5	99	2.9	61	3.1	62
149	19.0	120	2.6	173	2.8	174
150	15.9	227	3.0	30	3.2	30
151	18.2	146	2.6	173	2.8	174
152	15.8	232	2.8	94	3.0	94
153	15.4	243	2.9	61	3.0	94
154	19.5	99	2.4	250	2.6	250
155	16.5	205	2.6	173	2.8	174
156	16.2	213	2.8	94	3.0	94
157	16.8	193	2.6	173	2.8	174
158	16.1	218	2.9	61	3.1	62
159	18.1	149	2.7	133	2.9	134
160	14.7	253	3.0	30	3.2	30

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
161	19.2	113	2.7	133	2.9	134
162	17.1	183	2.6	173	2.9	134
164	19.4	106	2.6	173	2.8	174
165	19.8	84	2.5	226	2.8	174
167	20.8	58	2.7	133	2.9	134
168	23.3	13	2.7	133	2.8	174
169	23.9	9	2.5	226	2.7	225
170	18.4	143	2.8	94	3.0	94
171	22.8	17	3.0	30	3.2	30
172	20.1	74	3.1	22	3.3	22
173	18.0	151	2.9	61	3.1	62
177	15.6	237	3.4	6	3.6	6
178	16.3	211	3.0	30	3.2	30
179	18.1	149	3.1	22	3.3	22
180	21.7	33	2.8	94	3.0	94
181	22.5	22	2.7	133	2.9	134
182	23.4	12	2.5	226	2.7	225
183	22.7	19	2.8	94	3.0	94
184	23.5	11	2.6	173	2.8	174
185	22.5	22	2.6	173	2.7	225
186	21.2	47	2.7	133	2.9	134
188	16.9	187	2.9	61	3.1	62
189	18.5	139	2.9	61	3.2	30
190	18.5	139	2.9	61	3.1	62
191	19.6	91	2.8	94	3.0	94
192	19.6	91	2.4	250	2.6	250
193	22.3	25	2.9	61	3.1	62
194	19.9	80	3.0	30	3.2	30
195	21.2	47	3.0	30	3.2	30
196	20.7	60	3.0	30	3.2	30
199	19.8	84	3.0	30	3.2	30
201	20.6	62	2.5	226	2.7	225
202	16.4	208	2.7	133	2.9	134
203	19.6	91	2.5	226	2.7	225
204	17.9	156	3.1	22	3.3	22
205	17.6	165	3.2	15	3.4	13
206	20.4	67	3.0	30	3.2	30
207	18.2	146	3.0	30	3.2	30
208	17.5	170	2.9	61	3.1	62
209	16.1	218	3.2	15	3.4	13
210	16.2	213	3.3	9	3.5	9
212	17.1	183	3.4	6	3.7	3
213	16.1	218	3.2	15	3.4	13
215	17.8	160	3.0	30	3.2	30
216	19.2	113	2.8	94	3.1	62
217	20.5	64	2.8	94	3.0	94
218	21.2	47	2.6	173	2.8	174
219	17.6	165	3.0	30	3.2	30
220	18.9	125	2.9	61	3.1	62
221	24.2	7	2.6	173	2.8	174

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
222	22.7	19	2.5	226	2.7	225
223	21.6	37	2.8	94	3.0	94
224	23.0	15	2.8	94	3.0	94
225	21.7	33	2.7	133	2.9	134
226	21.4	42	2.7	133	2.9	134
227	23.9	9	2.9	61	3.1	62
228	24.7	5	2.5	226	2.7	225
229	25.4	3	2.6	173	2.8	174
230	25.0	4	2.5	226	2.7	225
231	21.8	31	2.8	94	3.0	94
232	21.3	45	2.6	173	2.8	174
233	21.4	42	2.6	173	2.8	174
234	25.8	2	2.6	173	2.8	174
235	23.9	9	2.6	173	2.8	174
236	22.9	16	2.7	133	2.9	134
237	20.8	58	2.8	94	3.0	94
238	19.5	99	2.9	61	3.1	62
240	17.5	170	3.3	9	3.5	9
241	16.0	222	2.9	61	3.1	62
242	17.7	162	2.6	173	2.8	174
243	15.5	240	3.5	3	3.6	6
244	15.9	227	3.3	9	3.4	13
245	18.6	136	3.3	9	3.5	9
246	17.6	165	3.6	1	3.8	1
247	17.9	156	3.6	1	3.8	1
248	18.5	139	3.4	6	3.6	6
249	18.8	130	3.5	3	3.7	3
250	19.3	109	3.5	3	3.7	3
251	17.3	177	3.2	15	3.4	13
252	18.7	134	3.3	9	3.5	9
255	21.2	47	2.8	94	3.0	94
256	19.3	109	2.7	133	2.9	134
257	19.6	91	2.8	94	3.0	94
258	17.3	177	3.1	22	3.3	22
259	17.6	165	3.1	22	3.3	22
260	17.1	183	2.9	61	3.2	30
261	21.6	37	2.6	173	2.8	174
262	21.7	33	3.0	30	3.2	30
263	18.7	134	2.9	61	3.2	30
264	19.0	120	2.8	94	3.1	62
265	22.8	17	2.8	94	3.0	94
266	20.9	54	2.7	133	2.9	134
267	20.9	54	2.6	173	2.8	174
268	20.1	74	2.8	94	3.0	94
269	21.6	37	2.7	133	2.9	134
270	19.3	109	2.8	94	3.0	94
271	19.5	99	2.6	173	2.8	174
272	19.8	84	2.8	94	3.0	94
273	20.1	74	2.6	173	2.8	174
274	21.1	50	2.7	133	2.8	174

Table 15. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Islamabad, Pakistan in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
275	18.9	125	2.7	133	3.0	94
276	20.1	74	2.6	173	2.8	174
277	18.4	143	2.7	133	2.9	134
278	20.3	69	2.7	133	2.9	134
279	16.6	204	2.8	94	3.0	94
280	19.0	120	2.7	133	2.9	134

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.50**	-.50**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	20.5	2.6	2.8
Bezostaya 1	19.1	2.7	2.9
Lancota	18.3	2.6	2.8
Centurk	17.8	2.7	2.9
CR8156	16.3	2.7	2.9
Overall means	18.4	2.7	2.9
$LSD_{.05}$ of the means	1.5	0.1	0.1
Coefficient of variation (%)	5.1	3.1	2.9

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975.

Entry no. [1]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	14.3	196	3.0	111	3.1	134
2	16.3	115	2.9	154	3.1	134
3	12.3	259	3.3	20	3.3	43
4	13.0	242	3.2	45	3.3	43
5	13.8	214	3.2	45	3.3	43
6	13.8	214	3.1	80	3.2	78
7	15.3	155	2.9	154	3.1	134
8	14.6	184	3.2	45	3.3	43
9	12.5	253	3.0	111	3.0	191
10	13.7	218	3.1	80	3.2	78
11	14.0	205	3.2	45	3.3	43
12	16.1	124	3.0	111	3.2	78
13	15.2	159	2.9	154	3.0	191
14	16.2	120	2.8	200	3.0	191
15	15.3	155	2.8	200	3.0	191
16	15.1	164	3.0	111	3.1	134
17	16.8	93	2.9	154	3.1	134
18	16.6	103	2.8	200	3.0	191
19	16.4	112	2.9	154	3.1	134
20	16.1	124	2.9	154	3.1	134
21	15.9	140	2.9	154	3.1	134
22	14.7	179	3.0	111	3.1	134
23	14.3	196	3.2	45	3.4	18
24	16.6	103	2.9	154	3.1	134
25	16.8	93	3.1	80	3.3	43
26	16.0	132	2.8	200	3.0	191
27	17.7	65	2.8	200	3.1	134
28	15.6	146	3.1	80	3.3	43
29	17.6	68	2.8	200	3.0	191
30	17.0	83	3.0	111	3.2	78
31	18.5	50	2.8	200	3.0	191
32	15.0	170	3.1	80	3.2	78
33	14.6	184	3.0	111	3.2	78
34	15.0	170	3.0	111	3.2	78
35	14.6	184	3.0	111	3.2	78
36	14.7	179	2.9	154	3.1	134
37	--	--	--	--	--	--
38	18.2	56	2.7	239	3.0	191
39	18.3	53	2.7	239	2.9	240
40	17.7	65	2.8	200	3.0	191
41	18.6	49	2.6	256	2.8	258
42	14.8	176	2.9	154	3.0	191
43	15.2	159	2.9	154	3.1	134
44	17.3	75	2.8	200	3.1	134
45	17.2	78	2.9	154	3.1	134
46	16.8	93	3.0	111	3.2	78
47	17.0	83	3.0	111	3.2	78
48	16.5	108	3.0	111	3.2	78
49	16.3	115	3.0	111	3.2	78
50	15.2	159	2.8	200	3.0	191

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
51	16.6	103	3.0	111	3.2	78
52	17.3	75	2.9	154	3.1	134
53	17.5	69	2.8	200	3.0	191
54	11.1	273	3.2	45	3.1	134
55	12.0	263	3.4	11	3.3	43
56	10.0	278	3.5	7	3.2	78
57	10.8	277	3.2	45	3.0	191
58	10.9	275	3.3	20	3.2	78
59	11.7	266	3.2	45	3.2	78
60	11.4	270	3.3	20	3.2	78
61	12.0	263	3.3	20	3.3	43
62	12.4	256	3.2	45	3.2	78
63	13.9	210	3.1	80	3.2	78
64	13.8	214	3.1	80	3.2	78
65	13.6	221	3.3	20	3.4	18
66	12.9	246	3.2	45	3.3	43
67	13.4	230	3.0	111	3.1	134
68	13.7	218	3.4	11	3.5	8
69	14.0	205	3.1	80	3.2	78
70	15.9	140	2.8	200	3.0	191
71	13.3	233	3.2	45	3.2	78
72	14.8	176	2.8	200	3.0	191
73	14.1	201	3.1	80	3.2	78
74	17.3	75	2.6	256	2.8	258
75	16.8	93	2.9	154	3.1	134
76	16.0	132	2.8	200	3.0	191
77	17.4	71	2.6	256	2.9	240
78	13.4	230	3.1	80	3.2	78
79	16.0	132	2.9	154	3.1	134
80	13.0	242	3.1	80	3.2	78
81	13.9	210	3.0	111	3.2	78
82	16.0	132	2.9	154	3.1	134
83	11.5	267	3.3	20	3.2	78
84	14.5	190	3.1	80	3.3	43
85	14.5	190	3.0	111	3.2	78
86	16.0	132	2.8	200	3.0	191
87	17.0	83	2.8	200	3.0	191
88	14.9	174	2.8	200	3.0	191
89	14.2	199	3.0	111	3.1	134
90	12.7	249	3.0	111	3.0	191
91	14.5	190	2.8	200	3.0	191
92	13.1	237	3.0	111	3.0	191
93	12.8	247	3.2	45	3.2	78
94	17.7	65	2.9	154	3.1	134
95	14.7	179	3.0	111	3.1	134
96	14.6	184	2.9	154	3.0	191
97	15.0	170	2.8	200	3.0	191
98	13.9	210	2.9	154	3.0	191
99	13.6	221	2.8	200	2.9	240
100	13.1	237	3.0	111	3.0	191

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
101	13.6	221	2.9	154	3.0	191
102	15.5	150	2.9	154	3.1	134
103	15.9	140	2.7	239	2.9	240
104	16.2	120	3.0	111	3.2	78
105	16.9	86	2.7	239	2.9	240
106	16.8	93	2.7	239	3.0	191
107	15.8	143	2.9	154	3.1	134
108	17.2	78	2.8	200	3.0	191
109	16.0	132	2.9	154	3.1	134
110	17.7	65	2.8	200	3.0	191
111	16.5	108	2.9	154	3.1	134
112	18.2	56	2.7	239	3.0	191
113	16.5	108	2.9	154	3.1	134
114	16.5	108	3.1	80	3.3	43
115	16.0	132	3.0	111	3.2	78
116	16.0	132	2.9	154	3.1	134
117	16.7	100	2.8	200	3.0	191
118	17.8	61	2.7	239	2.9	240
119	19.3	46	2.9	154	3.1	134
120	17.4	71	3.0	111	3.2	78
121	19.3	46	2.7	239	2.9	240
122	14.5	190	3.0	111	3.1	134
123	15.4	153	2.9	154	3.1	134
124	16.9	86	2.9	154	3.2	78
125	17.1	80	2.9	154	3.1	134
126	20.1	33	2.7	239	2.9	240
127	17.8	61	2.8	200	3.0	191
128	19.7	39	2.7	239	2.9	240
129	17.1	80	2.8	200	3.1	134
130	17.4	71	2.8	200	3.0	191
131	16.1	124	3.0	111	3.2	78
132	14.5	190	3.2	45	3.3	43
133	14.7	179	2.9	154	3.1	134
134	14.4	194	3.1	80	3.3	43
135	15.9	140	2.8	200	3.0	191
136	13.3	233	3.2	45	3.3	43
137	13.0	242	3.1	80	3.1	134
138	13.0	242	3.1	80	3.1	134
139	14.2	199	3.0	111	3.1	134
140	15.0	170	3.0	111	3.1	134
141	13.2	235	3.1	80	3.2	78
142	15.1	164	3.0	111	3.1	134
143	12.5	253	3.2	45	3.2	78
144	12.1	262	3.2	45	3.2	78
145	13.1	237	3.2	45	3.2	78
146	14.5	190	3.1	80	3.3	43
147	12.4	256	3.3	20	3.3	43
148	13.0	242	3.1	80	3.1	134
149	14.0	205	3.0	111	3.1	134
150	14.0	205	3.2	45	3.3	43

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
151	14.3	196	3.1	80	3.2	78
152	13.5	226	3.3	20	3.4	18
153	13.6	221	3.1	80	3.2	78
154	16.1	124	2.9	154	3.1	134
155	13.8	214	3.2	45	3.3	43
156	13.5	226	3.1	80	3.2	78
157	12.5	253	3.3	20	3.3	43
158	12.4	256	3.3	20	3.3	43
159	14.9	174	3.2	45	3.3	43
160	11.4	270	3.3	20	3.2	78
161	12.7	249	3.3	20	3.3	43
162	14.0	205	2.9	154	3.0	191
163	9.9	279	3.6	4	3.3	43
164	15.0	170	3.0	111	3.2	78
165	16.7	100	2.8	200	3.0	191
166	17.0	83	3.0	111	3.2	78
167	18.2	56	3.2	45	3.5	8
168	13.5	226	3.3	20	3.3	43
169	17.2	78	3.0	111	3.2	78
170	11.5	267	3.3	20	3.2	78
171	12.3	259	3.6	4	3.6	2
172	13.0	242	3.3	20	3.4	18
173	12.8	247	3.6	4	3.7	1
174	11.4	270	3.5	7	3.4	18
175	10.9	275	3.8	1	3.6	2
176	11.3	272	3.7	2	3.6	2
177	10.9	275	3.7	2	3.5	8
178	11.8	265	3.4	11	3.3	43
179	16.8	93	3.2	45	3.4	18
180	16.3	115	3.0	111	3.2	78
181	19.4	44	3.1	80	3.3	43
182	20.5	27	2.9	154	3.1	134
183	17.7	65	3.1	80	3.3	43
184	19.9	36	2.9	154	3.1	134
185	19.5	43	2.9	154	3.1	134
186	17.8	61	3.1	80	3.3	43
187	13.5	226	3.4	11	3.5	8
188	12.6	251	3.5	7	3.6	2
189	13.5	226	3.4	11	3.4	18
190	12.3	259	3.3	20	3.3	43
191	14.5	190	3.2	45	3.4	18
192	15.2	159	3.1	80	3.3	43
193	15.5	150	3.3	20	3.5	8
194	15.5	150	3.2	45	3.4	18
195	15.1	164	3.1	80	3.2	78
196	16.5	108	3.3	20	3.5	8
197	16.2	120	3.3	20	3.5	8
198	14.6	184	3.2	45	3.4	18
199	15.6	146	3.2	45	3.4	18
200	14.2	199	3.4	11	3.5	8

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
201	19.4	44	2.7	239	2.9	240
202	15.2	159	2.8	200	3.0	191
203	15.6	146	2.9	154	3.0	191
204	15.0	170	3.3	20	3.4	18
205	16.7	100	3.2	45	3.4	18
206	16.0	132	3.2	45	3.4	18
207	16.5	108	3.0	111	3.2	78
208	15.1	164	3.5	7	3.6	2
209	13.8	214	3.3	20	3.4	18
210	15.5	150	3.3	20	3.4	18
211	13.0	242	3.3	20	3.4	18
212	14.0	205	3.3	20	3.4	18
213	13.3	233	3.4	11	3.5	8
214	13.8	214	3.4	11	3.5	8
215	15.5	150	3.2	45	3.4	18
216	18.3	53	2.9	154	3.1	134
217	20.3	30	2.8	200	3.0	191
218	18.4	52	3.2	45	3.4	18
219	21.0	19	2.5	272	2.7	268
220	18.9	48	3.0	111	3.2	78
221	22.7	6	2.7	239	2.9	240
222	20.6	25	2.8	200	3.0	191
223	19.6	41	2.7	239	3.0	191
224	22.2	8	2.8	200	3.0	191
225	21.4	14	2.9	154	3.1	134
226	21.5	13	2.6	256	2.8	258
227	21.9	11	3.0	111	3.2	78
228	22.9	5	2.8	200	2.9	240
229	22.1	9	2.6	256	2.7	268
230	23.3	4	2.5	272	2.7	268
231	22.3	7	2.8	200	3.0	191
232	22.0	10	2.7	239	2.9	240
233	24.0	1	2.6	256	2.8	258
234	23.6	2	2.8	200	3.0	191
235	23.4	3	2.8	200	2.9	240
236	21.2	16	2.9	154	3.1	134
237	20.7	22	2.9	154	3.0	191
238	20.1	33	3.0	111	3.2	78
239	16.8	93	3.2	45	3.4	18
240	15.1	164	3.0	111	3.1	134
241	15.0	170	3.0	111	3.2	78
242	16.8	93	2.7	239	2.9	240
243	12.3	259	3.2	45	3.2	78
244	13.4	230	3.3	20	3.4	18
245	16.2	120	3.1	80	3.3	43
246	16.3	115	3.1	80	3.3	43
247	15.9	140	3.4	11	3.6	2
248	16.3	115	3.0	111	3.2	78
249	16.8	93	3.2	45	3.4	18
250	16.8	93	3.1	80	3.3	43

Table 16. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Bethlehem, South Africa in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
251	15.3	155	3.0	111	3.2	78
252	15.7	144	3.1	80	3.3	43
253	14.1	201	3.2	45	3.4	18
254	16.0	132	3.2	45	3.4	18
255	20.0	35	2.6	256	2.8	258
256	17.9	59	2.9	154	3.1	134
257	18.0	58	2.8	200	3.1	134
258	17.4	71	2.9	154	3.1	134
259	16.5	108	2.9	154	3.1	134
260	16.8	93	2.9	154	3.1	134
261	20.7	22	2.5	272	2.7	268
262	20.6	25	2.4	277	2.6	277
263	18.5	50	2.6	256	2.9	240
264	20.3	30	2.5	272	2.7	268
265	21.2	16	2.6	256	2.7	268
266	20.8	20	2.4	277	2.6	277
267	19.8	37	2.6	256	2.8	258
268	20.5	27	2.8	200	3.0	191
269	19.8	37	2.6	256	2.8	258
270	19.7	39	2.7	239	2.9	240
271	21.2	16	2.6	256	2.7	268
272	20.3	30	2.6	256	2.8	258
273	21.2	16	2.6	256	2.7	268
274	20.7	22	2.6	256	2.8	258
275	20.3	30	2.5	272	2.7	268
276	21.6	12	2.4	277	2.6	277
277	19.6	41	2.6	256	2.8	258
278	20.7	22	2.7	239	2.9	240
279	16.0	132	2.8	200	3.0	191
280	16.3	115	2.9	154	3.1	134

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.75**	-.59**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	19.5	2.7	2.9
Lancota	15.8	2.9	3.0
Bezostaya 1	15.6	2.9	3.1
CR8156	15.1	2.9	3.0
Centurk	14.0	3.1	3.2
CI13449	11.5	3.4	3.2
Overall means	15.3	3.0	3.1
$LSD_{.05}$ of the means	1.0	0.1	0.1
Coefficient of variation (%)	4.3	3.2	2.0

Table 17. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Ankara, Turkey in 1975.

Entry no.[1/]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	18.9	139	2.6	197	2.8	201
2	20.1	86	2.5	240	2.7	241
3	17.7	198	2.8	90	3.1	59
4	17.4	207	3.0	27	3.2	29
5	16.4	236	2.7	137	2.9	146
6	17.4	207	2.8	90	3.1	59
7	19.2	124	2.5	240	2.7	241
8	15.8	249	2.7	137	2.9	146
9	17.9	187	2.5	240	2.8	201
10	15.5	253	2.8	90	3.0	93
11	17.1	219	2.8	90	3.0	93
12	17.9	187	2.8	90	3.0	93
13	16.6	232	2.7	137	2.9	146
14	19.5	113	2.6	197	2.8	201
15	17.1	219	2.6	197	2.8	201
16	18.5	157	2.7	137	2.9	146
17	18.2	173	2.5	240	2.7	241
18	18.2	173	2.7	137	2.9	146
19	18.8	141	2.7	137	2.9	146
20	18.5	157	2.6	197	2.8	201
21	17.4	207	2.6	197	2.9	146
22	16.0	244	2.7	137	2.9	146
23	15.3	254	2.9	56	3.1	59
24	17.1	219	2.7	137	2.9	146
25	18.5	157	2.8	90	3.0	93
26	16.9	225	2.7	137	2.9	146
27	20.0	89	2.5	240	2.7	241
28	18.7	144	2.7	137	2.9	146
29	16.3	238	2.6	197	2.9	146
30	19.6	109	2.6	197	2.8	201
31	16.0	244	2.9	56	3.0	93
32	16.1	241	2.7	137	2.9	146
34[2/]	15.7	251	2.9	56	3.1	59
35	16.0	244	2.8	90	3.0	93
36	16.0	244	2.8	90	3.0	93
37	18.1	179	2.6	197	2.8	201
38	21.3	39	2.6	197	2.8	201
39	22.1	29	2.5	240	2.7	241
40	20.6	59	2.6	197	2.8	201
41	23.0	21	2.7	137	2.9	146
42	18.2	173	2.5	240	2.7	241
43	18.1	179	2.7	137	2.9	146
44	19.4	116	2.8	90	3.0	93
45	20.3	77	2.7	137	2.9	146
46	21.4	37	2.4	257	2.6	257
47	19.8	100	2.6	197	2.8	201
48	20.4	73	2.7	137	2.9	146
49	21.6	34	2.6	197	2.8	201
50	16.7	229	2.8	90	3.0	93
51	17.6	201	2.7	137	3.0	93
52	17.2	216	2.7	137	2.9	146
53	18.7	144	2.6	197	2.8	201
54	19.3	120	2.7	137	2.9	146
55	18.6	150	2.7	137	3.0	93
56	18.2	173	2.9	56	3.1	59

1/ Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243, are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

2/ Missing entries were not harvested.

Table 17. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Ankara, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
57	14.8	256	2.9	56	3.1	59
58	14.4	257	3.0	27	3.1	59
60	15.3	254	3.0	27	3.1	59
61	15.7	251	3.0	27	3.2	29
62	16.2	239	2.8	90	3.0	93
63	17.3	212	2.9	56	3.1	59
64	19.3	120	2.7	137	2.9	146
65	19.5	113	2.8	90	3.0	93
66	15.9	247	2.9	56	3.0	93
67	17.4	207	2.7	137	3.0	93
68	17.7	198	2.9	56	3.2	29
69	17.3	212	2.7	137	2.9	146
70	19.1	129	2.6	197	2.8	201
71	18.3	167	2.8	90	3.0	93
72	19.1	129	2.7	137	2.9	146
73	17.4	207	2.8	90	3.0	93
74	19.4	116	2.7	137	2.9	146
75	19.1	129	2.8	90	3.0	93
76	19.2	124	2.7	137	2.9	146
77	21.3	39	2.7	137	2.9	146
78	18.5	157	3.0	27	3.2	29
79	19.1	129	2.6	197	2.8	201
80	16.9	225	2.9	56	3.1	59
81	16.4	236	2.7	137	2.9	146
82	18.6	150	2.6	197	2.8	201
83	18.0	183	3.0	27	3.2	29
84	18.5	157	2.8	90	3.1	59
85	16.4	236	2.9	56	3.1	59
86	19.6	109	2.7	137	3.0	93
87	20.5	66	2.6	197	2.8	201
88	17.8	193	2.7	137	2.9	146
89	17.3	212	2.6	197	2.8	201
90	17.4	207	2.7	137	2.9	146
91	18.3	167	2.6	197	2.8	201
92	16.7	229	2.8	90	3.0	93
93	16.7	229	2.8	90	3.0	93
94	17.8	193	2.7	137	3.0	93
95	19.7	106	2.7	137	2.9	146
96	16.1	241	2.6	197	2.8	201
97	20.2	82	2.6	197	2.8	201
98	18.6	150	2.7	137	3.0	93
99	20.5	66	2.6	197	2.8	201
100	20.4	73	2.6	197	2.8	201
101	19.3	120	2.8	90	3.0	93
102	21.9	31	2.5	240	2.7	241
103	19.8	100	2.6	197	2.8	201
104	19.0	135	2.5	240	2.7	241
105	19.5	113	2.6	197	2.8	201
106	19.0	135	2.6	197	2.8	201
107	19.0	135	2.6	197	2.8	201
108	17.6	201	2.6	197	2.8	201
109	19.9	93	2.6	197	2.8	201
110	18.9	139	2.5	240	2.7	241
111	19.8	100	2.7	137	2.9	146
112	20.2	82	2.6	197	2.8	201

Table 17. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Ankara, Turkey in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
113	20.2	82	2.8	90	3.0	93
114	18.3	167	3.0	27	3.2	29
115	18.4	162	2.7	137	2.9	146
116	18.0	183	2.8	90	3.1	59
117	19.7	106	2.7	137	2.9	146
118	21.0	45	2.5	240	2.7	241
119	19.9	93	2.6	197	2.8	201
120	20.0	89	2.7	137	2.9	146
121	24.6	10	2.7	137	2.9	146
122	19.8	100	2.5	240	2.7	241
123	19.8	100	2.7	137	2.9	146
124	21.5	36	2.6	197	2.8	201
125	23.3	17	2.5	240	2.7	241
126	21.2	41	2.7	137	2.9	146
127	19.3	120	2.6	197	2.8	201
128	20.5	66	2.8	90	3.0	93
129	18.5	157	2.7	137	3.0	93
130	20.5	66	2.7	137	2.9	146
131	19.6	109	3.0	27	3.2	29
132	17.8	193	3.1	7	3.3	8
133	19.7	106	3.0	27	3.2	29
134	18.1	179	2.9	56	3.2	29
135	18.1	179	2.8	90	3.1	59
136	17.7	198	2.6	197	2.8	201
137	17.0	221	2.8	90	3.0	93
138	16.5	234	3.0	27	3.3	8
139	17.9	187	2.8	90	3.0	93
140	17.0	221	2.9	56	3.1	59
141	16.7	229	2.8	90	3.0	93
142	17.4	207	2.9	56	3.1	59
143	18.1	179	2.9	56	3.2	29
144	19.2	124	2.8	90	3.0	93
145	18.4	162	3.0	27	3.3	8
146	19.8	100	2.9	56	3.1	59
147	18.9	139	2.8	90	3.0	93
148	17.9	187	2.8	90	3.1	59
149	16.2	239	2.9	56	3.1	59
150	15.9	247	3.0	27	3.2	29
151	16.9	225	2.7	137	2.9	146
152	15.8	249	2.9	56	3.1	59
153	17.8	193	2.7	137	2.9	146
154	19.8	100	2.6	197	2.8	201
155	17.6	201	2.7	137	2.9	146
156	17.9	187	2.6	197	2.9	146
157	18.1	179	2.7	137	2.9	146
158	18.3	167	2.9	56	3.1	59
159	18.6	150	2.7	137	3.0	93
160	17.2	216	2.9	56	3.1	59
161	16.9	225	2.7	137	2.9	146
162	18.1	179	2.8	90	3.0	93
163	18.5	157	2.9	56	3.1	59
164	16.9	225	2.8	90	3.0	93
165	18.3	167	2.7	137	2.9	146
166	25.4	6	2.7	137	2.9	146
167	22.5	24	2.9	56	3.1	59

Table 17. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Ankara, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
168	24.1	13	3.0	27	3.2	29
169	30.1	1	2.9	56	3.3	8
171	23.0	21	3.1	7	3.2	29
172	23.0	21	3.0	27	3.2	29
173	22.2	27	3.0	27	3.2	29
174	20.8	51	3.1	7	3.3	8
175	20.7	54	3.0	27	3.2	29
176	20.6	59	3.2	3	3.4	3
177	20.5	66	3.0	27	3.2	29
178	20.6	59	2.9	56	3.0	93
180	23.3	17	2.8	90	3.0	93
182	23.3	17	2.8	90	3.0	93
183	23.2	19	2.8	90	3.0	93
184	19.3	120	2.9	56	3.1	59
186	20.4	73	3.1	7	3.3	8
188	19.0	135	2.9	56	3.2	29
189	18.7	144	3.0	27	3.2	29
191	20.6	59	2.7	137	2.9	146
192	20.6	59	2.8	90	3.0	93
193	21.9	31	2.7	137	2.9	146
194	21.6	34	3.1	7	3.3	8
195	21.6	34	3.1	7	3.2	29
196	20.5	66	3.0	27	3.2	29
197	21.0	45	3.1	7	3.3	8
198	17.2	216	3.1	7	3.3	8
199	20.0	89	3.2	3	3.4	3
200	17.8	193	3.2	3	3.4	3
201	24.8	9	2.7	137	2.8	201
202	19.5	113	2.6	197	2.9	146
203	19.1	129	2.7	137	2.9	146
204	19.8	100	3.1	7	3.4	3
205	20.8	51	3.0	27	3.2	29
206	20.6	59	3.1	7	3.3	8
207	20.5	66	3.0	27	3.2	29
208	20.4	73	3.0	27	3.2	29
209	17.3	212	3.1	7	3.3	8
210	19.5	113	3.0	27	3.2	29
211	17.8	193	3.1	7	3.3	8
212	18.2	173	3.1	7	3.4	3
213	18.6	150	3.1	7	3.3	8
214	20.3	77	3.1	7	3.3	8
215	18.7	144	3.3	1	3.5	1
216	20.9	48	2.8	90	3.0	93
217	25.3	7	2.9	56	3.0	93
218	22.2	27	2.8	90	3.0	93
219	25.9	3	3.1	7	3.3	8
220	20.9	48	2.8	90	3.0	93
222	25.2	8	2.8	90	3.0	93
228	24.5	11	2.9	56	3.1	59
229	26.7	2	2.9	56	3.1	59
232	20.3	77	3.0	27	3.2	29
233	24.2	12	3.0	27	3.2	29
234	25.7	5	2.7	137	2.9	146
235	25.9	3	2.8	90	3.0	93
236	23.6	15	2.9	56	3.1	59

Table 17. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Ankara, Turkey in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
239	22.6	23	3.0	27	3.2	29
240	22.2	27	3.2	3	3.3	8
241	18.3	167	2.7	137	2.9	146
242	20.2	82	2.7	137	2.9	146
243	20.2	82	3.3	1	3.5	1
244	17.6	201	2.9	56	3.1	59
245	19.9	93	3.1	7	3.3	8
246	20.0	89	3.0	27	3.3	8
247	22.1	29	2.7	137	2.9	146
248	20.2	82	3.0	27	3.2	29
249	20.9	48	3.1	7	3.3	8
250	20.4	73	2.8	90	3.0	93
251	18.5	157	3.1	7	3.3	8
253	18.6	150	3.0	27	3.2	29
254	18.8	141	3.1	7	3.3	8
255	20.1	86	2.8	90	3.0	93
256	21.1	43	2.8	90	3.0	93
257	20.7	54	2.9	56	3.1	59
258	19.1	129	2.9	56	3.1	59
259	22.5	24	2.9	56	3.1	59
260	16.6	232	2.9	56	3.1	59
261	21.1	43	2.5	240	2.7	241
262	20.5	66	2.8	90	3.0	93
264	18.3	167	2.6	197	2.9	146
265	19.8	100	2.7	137	3.0	93
267	20.3	77	2.6	197	2.8	201
268	17.8	193	2.8	90	3.1	59
269	18.6	150	2.7	137	2.9	146
270	20.6	59	2.8	90	3.0	93
271	21.4	37	2.6	197	2.8	201
272	19.1	129	2.5	240	2.8	201
274	20.8	51	2.6	197	2.8	201
275	20.8	51	2.5	240	2.7	241
276	21.1	43	2.8	90	3.0	93
277	19.9	93	2.5	240	2.7	241
278	23.7	14	2.6	197	2.7	241
280	19.0	135	2.6	197	2.8	201

Correlation Coefficients

	Lysine/protein .01	Adjusted lysine .01
Protein		

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	24.1	2.7	2.9
CR8156	19.2	2.5	2.8
Bezostaya 1	19.0	2.7	2.9
Lancota	18.9	2.6	2.8
CI13449	18.1	2.9	3.1
Centurk	17.4	2.7	2.9
Overall means	19.5	2.7	2.9
$LSD_{.05}$ of the means	1.9	0.1	0.1
Coefficient of variation (%)	5.3	2.9	2.7

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975.

Entry no.[1]	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
1	13.3	233	3.0	140	3.0	205
2	14.1	175	2.8	218	2.9	240
3	12.6	254	3.4	22	3.4	35
4	11.1	278	3.4	22	3.3	64
5	12.4	256	2.9	184	2.9	240
6	11.4	275	3.3	44	3.2	108
7	13.4	227	3.4	22	3.5	14
8	14.7	131	2.8	218	3.0	205
9	13.2	238	3.1	98	3.2	108
10	12.7	251	3.2	68	3.3	64
11	12.2	260	3.3	44	3.2	108
12	14.6	137	3.0	140	3.2	108
13	14.4	153	3.1	98	3.2	108
14	14.4	153	3.0	140	3.2	108
15	13.5	220	3.2	68	3.3	64
16	14.0	184	3.2	68	3.4	35
17	14.4	153	3.1	98	3.3	64
18	14.0	184	3.1	98	3.2	108
19	15.4	94	3.0	140	3.2	108
20	14.0	184	3.1	98	3.2	108
21	13.8	202	3.0	140	3.1	156
22	13.3	233	3.0	140	3.1	156
23	13.7	208	3.1	98	3.2	108
24	14.8	127	3.1	98	3.2	108
25	16.0	75	3.1	98	3.3	64
26	14.9	121	2.9	184	3.1	156
27	17.8	25	2.8	218	3.0	205
28	16.1	72	3.0	140	3.2	108
29	18.6	14	2.8	218	3.0	205
30	15.5	90	2.9	184	3.1	156
31	18.0	21	2.7	250	2.9	240
32	14.0	184	3.0	140	3.1	156
33	13.8	202	3.2	68	3.3	64
34	13.9	194	3.1	98	3.3	64
35	13.8	202	3.0	140	3.1	156
36	13.3	233	3.1	98	3.1	156
37	13.0	243	3.1	98	3.2	108
38	15.2	107	2.8	218	2.9	240
39	15.6	86	2.7	250	2.9	240
40	15.0	116	2.7	250	2.9	240
41	16.3	62	2.7	250	2.9	240
42	13.0	243	3.1	98	3.1	156
43	14.3	160	2.8	218	2.9	240
44	15.9	78	2.8	218	3.0	205
45	16.1	72	2.8	218	3.0	205
46	16.0	75	2.8	218	2.9	240
47	16.9	42	2.8	218	3.0	205
48	17.1	35	2.9	184	3.1	156
49	16.3	62	2.9	184	3.1	156
50	14.1	175	3.0	140	3.1	156

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
51	16.4	58	2.8	218	3.0	205
52	16.3	62	2.7	250	2.9	240
53	13.6	213	2.9	184	3.0	205
54	11.5	272	3.2	68	3.1	156
55	12.2	260	3.4	22	3.4	35
56	11.4	275	3.4	22	3.2	108
57	11.6	268	3.4	22	3.3	64
58	11.4	275	3.5	11	3.4	35
59	11.5	272	3.6	4	3.5	14
60	11.8	265	3.4	22	3.3	64
61	11.3	277	3.3	44	3.2	108
62	12.3	257	3.4	22	3.4	35
63	14.0	184	3.2	68	3.3	64
64	14.2	168	3.1	98	3.3	64
65	13.4	227	3.3	44	3.4	35
66	13.6	213	3.4	22	3.5	14
67	13.4	227	3.2	68	3.2	108
68	13.5	220	3.3	44	3.4	35
69	13.6	213	3.0	140	3.1	156
70	14.8	127	2.9	184	3.0	205
71	12.6	254	3.3	44	3.3	64
72	13.1	240	3.3	44	3.4	35
73	15.1	113	3.1	98	3.3	64
74	15.7	83	3.2	68	3.4	35
75	16.4	58	3.4	22	3.6	8
76	16.2	68	3.1	98	3.3	64
77	15.2	107	3.3	44	3.4	35
78	14.2	168	3.3	44	3.4	35
79	14.1	175	3.1	98	3.2	108
80	14.0	184	3.5	11	3.6	8
81	15.5	90	3.1	98	3.3	64
82	16.2	68	2.8	218	3.0	205
83	13.4	227	3.7	3	3.8	3
84	13.5	220	3.4	22	3.4	35
85	14.0	184	3.4	22	3.5	14
86	14.5	146	2.7	250	2.9	240
87	14.9	121	3.1	98	3.2	108
88	14.3	160	3.2	68	3.3	64
89	13.4	227	3.0	140	3.1	156
90	14.3	160	3.0	140	3.2	108
91	15.0	116	2.9	184	3.1	156
92	14.9	121	3.1	98	3.3	64
93	14.5	146	3.4	22	3.6	8
94	14.5	146	3.4	22	3.5	14
95	14.3	160	3.1	98	3.3	64
96	14.0	184	3.0	140	3.1	156
97	16.3	62	3.1	98	3.3	64
98	17.5	28	3.0	140	3.3	64
99	16.6	50	2.9	184	3.1	156
100	15.3	100	2.9	184	3.0	205

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
101	13.6	213	3.3	44	3.4	35
102	14.6	137	3.0	140	3.2	108
103	16.6	50	2.7	250	2.9	240
104	16.2	68	3.1	98	3.3	64
105	16.6	50	2.9	184	3.1	156
106	15.4	94	2.9	184	3.1	156
107	14.8	127	2.9	184	3.1	156
108	15.2	107	2.9	184	3.0	205
109	14.8	127	3.0	140	3.2	108
110	16.3	62	2.8	218	3.0	205
111	15.4	94	2.8	218	3.0	205
112	15.4	94	2.9	184	3.0	205
113	14.6	137	3.1	98	3.3	64
114	13.9	194	3.4	22	3.5	14
115	15.1	113	3.1	98	3.2	108
116	16.1	72	3.0	140	3.2	108
117	16.6	50	3.0	140	3.2	108
118	16.7	46	3.0	140	3.2	108
119	15.2	107	2.9	184	3.1	156
120	13.8	202	3.0	140	3.1	156
121	15.6	86	2.8	218	3.0	205
122	12.2	260	3.2	68	3.2	108
123	13.4	227	2.9	184	2.9	240
124	13.5	220	3.0	140	3.1	156
125	13.4	227	2.9	184	3.0	205
126	15.7	83	2.8	218	3.0	205
127	15.3	100	2.8	218	2.9	240
128	15.1	113	2.7	250	2.9	240
129	14.4	153	3.0	140	3.1	156
130	13.8	202	2.9	184	3.0	205
131	14.2	168	3.0	140	3.1	156
132	14.6	137	3.2	68	3.4	35
133	13.6	213	3.2	68	3.3	64
134	12.8	249	3.1	98	3.1	156
135	13.3	233	3.3	44	3.3	64
136	14.9	121	3.3	44	3.5	14
137	16.2	68	3.1	98	3.3	64
138	15.4	94	3.1	98	3.3	64
139	15.2	107	2.2	279	2.4	279
140	14.5	146	3.0	140	3.1	156
141	12.9	247	3.0	140	3.1	156
142	14.5	146	3.1	98	3.2	108
143	14.0	184	3.2	68	3.3	64
144	14.3	160	3.2	68	3.3	64
145	15.3	100	3.5	11	3.7	5
146	13.2	238	2.9	184	3.0	205
147	12.9	247	3.3	44	3.3	64
148	12.9	247	3.2	68	3.2	108
149	13.5	220	3.1	98	3.2	108
150	14.7	131	3.0	140	3.1	156

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
151	16.0	75	3.0	140	3.2	108
152	14.8	127	3.0	140	3.1	156
153	13.9	194	3.1	98	3.2	108
154	15.3	100	2.9	184	3.1	156
155	14.2	168	3.0	140	3.1	156
156	14.5	146	2.9	184	3.1	156
157	15.2	107	3.1	98	3.2	108
158	14.9	121	3.0	140	3.1	156
159	14.4	153	2.8	218	3.0	205
160	14.1	175	3.1	98	3.2	108
161	13.3	233	3.1	98	3.1	156
162	15.0	116	2.7	250	2.9	240
163	12.7	251	3.3	44	3.3	64
164	14.3	160	3.0	140	3.2	108
165	16.0	75	2.9	184	3.1	156
166	17.1	35	2.6	272	2.8	274
167	16.6	50	3.1	98	3.3	64
168	17.8	25	3.0	140	3.2	108
169	16.7	46	2.8	218	3.0	205
170	15.8	81	3.2	68	3.4	35
171	18.0	21	3.2	68	3.5	14
172	15.9	78	3.2	68	3.4	35
173	15.6	86	3.1	98	3.3	64
174	14.6	137	3.4	22	3.5	14
175	14.2	168	3.5	11	3.7	5
176	14.6	137	3.8	1	4.0	1
177	13.8	202	3.8	1	3.9	2
178	14.6	137	3.2	68	3.4	35
179	15.4	94	3.1	98	3.3	64
180	13.9	194	3.2	68	3.3	64
181	18.4	16	2.9	184	3.1	156
182	16.6	50	3.0	140	3.2	108
183	14.7	131	3.3	44	3.4	35
184	19.3	7	2.7	250	2.9	240
185	19.5	6	2.7	250	2.9	240
186	18.7	11	3.0	140	3.2	108
187	17.0	39	3.0	140	3.2	108
188	13.8	202	3.1	98	3.2	108
189	13.0	243	3.5	11	3.5	14
190	11.6	268	3.5	11	3.4	35
191	14.2	168	3.0	140	3.1	156
192	14.6	137	3.2	68	3.3	64
193	14.5	146	3.1	98	3.2	108
194	15.6	86	3.2	68	3.4	35
195	14.3	160	3.2	68	3.4	35
196	13.7	208	3.5	11	3.6	8
197	13.0	243	3.4	22	3.4	35
198	11.6	268	3.6	4	3.5	14
199	11.0	280	3.6	4	3.5	14
200	11.6	268	3.6	4	3.5	14

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
201	15.2	107	2.8	218	2.9	240
202	13.0	253	2.9	184	2.9	240
203	13.6	213	2.9	184	3.0	205
204	14.6	137	3.4	22	3.5	14
205	14.6	137	3.0	140	3.2	108
206	13.9	194	3.2	68	3.3	64
207	13.9	194	3.3	44	3.4	35
208	14.2	168	3.3	44	3.5	14
209	13.5	220	3.3	44	3.4	35
210	13.7	208	3.3	44	3.4	35
211	12.6	254	3.6	4	3.6	8
212	12.2	260	3.5	11	3.5	14
213	13.3	233	3.5	11	3.6	8
214	12.2	260	3.4	22	3.4	35
215	11.7	266	3.6	4	3.5	14
216	11.9	264	3.2	68	3.1	156
217	16.5	55	2.8	218	3.1	156
218	17.1	35	2.8	218	3.0	205
219	14.4	153	3.0	140	3.2	108
220	15.0	116	3.0	140	3.2	108
221	18.2	18	2.8	218	3.0	205
222	17.8	25	2.7	250	2.9	240
223	16.5	55	3.0	140	3.2	108
224	17.5	28	2.9	184	3.1	156
225	18.7	11	2.9	184	3.2	108
226	17.4	31	2.9	184	3.1	156
227	18.3	17	3.0	140	3.2	108
228	18.7	11	2.8	218	3.0	205
229	16.8	43	2.8	218	3.0	205
230	17.4	31	2.7	250	3.0	205
231	15.8	81	2.9	184	3.1	156
232	16.2	68	2.7	250	2.9	240
233	17.0	39	2.9	184	3.1	156
234	21.0	1	2.7	250	2.9	240
235	19.3	7	2.7	250	3.0	205
236	16.8	43	2.9	184	3.1	156
237	14.2	168	3.1	98	3.3	64
238	14.9	121	3.1	98	3.2	108
239	13.8	202	3.2	68	3.3	64
240	13.9	194	2.8	218	2.9	240
241	12.2	260	3.0	140	3.0	205
242	13.9	194	2.8	218	2.9	240
243	11.1	278	3.3	44	3.1	156
244	11.5	272	3.5	11	3.4	35
245	13.6	213	3.3	44	3.3	64
246	14.1	175	3.3	44	3.4	35
247	14.0	184	3.2	68	3.3	64
248	14.0	184	3.2	68	3.3	64
249	13.9	194	3.4	22	3.5	14
250	14.2	168	3.2	68	3.3	64

Table 18. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Eskisehir, Turkey in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
251	15.2	107	3.3	44	3.5	14
252	15.3	100	3.4	22	3.5	14
253	16.5	55	3.6	4	3.8	3
254	15.8	81	3.5	11	3.7	5
255	15.5	90	2.8	218	3.0	205
256	15.3	100	3.0	140	3.2	108
257	16.4	58	3.1	98	3.3	64
258	13.5	220	3.4	22	3.5	14
259	14.1	175	3.3	44	3.4	35
260	13.2	238	3.2	68	3.3	64
261	19.9	3	2.6	272	2.9	240
262	17.0	39	2.8	218	3.0	205
263	17.0	39	2.7	250	2.9	240
264	16.7	46	2.8	218	3.0	205
265	20.6	2	2.6	272	2.8	274
266	19.2	9	2.5	278	2.7	278
267	19.6	5	2.6	272	2.8	274
268	18.2	18	2.8	218	3.0	205
269	19.8	4	2.6	272	2.8	274
270	17.3	33	2.1	280	2.3	280
271	17.0	39	2.9	184	3.1	156
272	17.9	23	2.7	250	2.9	240
273	17.5	28	2.7	250	2.9	240
274	18.5	15	2.6	272	2.9	240
275	17.4	31	2.7	250	2.9	240
276	18.7	11	2.7	250	2.9	240
277	18.1	20	2.7	250	2.9	240
278	16.3	62	2.9	184	3.1	156
279	12.8	249	3.1	98	3.1	156
280	14.4	153	2.8	218	2.9	240

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.64**	-.43**

** Significant at the .01 level.

Means of the check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	15.9	2.8	3.0
Lancota	14.8	2.8	2.9
Bezostaya 1	13.9	2.8	2.9
Centurk	13.6	3.0	3.1
CR8156	12.8	3.1	3.1
CI13449	12.5	3.4	3.4
Overall means	13.9	3.0	3.1
$LSD_{.05}$ of the means	1.3	0.1	0.2
Coefficient of variation (%)	6.2	3.1	3.8

Table 19. Protein and lysine values with yield data, maturity, and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975.

Entry no. [1]	Protein		Lysine/protein		Adjusted lysine/protein		Yield		Maturity [2]	Plant height [3]
	%	rank	%	rank	%	rank	q/ha	rank		
1	11.0	244	3.2	125	3.1	158	55.6	133	M	MT
2	11.8	167	3.1	170	3.0	242	55.0	140	M	T
3	11.4	203	3.5	8	3.3	30	75.4	9	ML	VS
4	10.3	280	3.5	8	3.2	86	67.3	25	M	MS
5	11.6	187	3.3	69	3.2	86	57.0	118	ML	T
6	10.9	263	3.5	8	3.4	10	60.3	72	ML	T
7	12.0	150	3.3	69	3.3	30	52.3	173	ML	S
8	11.5	192	3.2	125	3.1	158	59.1	88	M	VT
9	11.1	240	3.3	69	3.2	86	55.1	138	ML	S
10	11.1	234	3.4	35	3.2	86	56.4	123	ML	T
11	10.3	279	3.3	69	3.1	158	76.0	8	M	MS
12	13.7	70	3.0	209	3.1	158	54.4	149	M	T
13	13.6	73	3.0	209	3.1	158	55.7	132	M	T
14	12.4	128	3.2	125	3.2	86	54.5	146	M	MS
15	12.0	152	3.2	125	3.1	158	58.9	91	M	MS
16	12.0	156	3.3	69	3.2	86	62.8	53	M	MS
17	12.8	97	3.1	170	3.2	86	56.5	122	M	MS
18	11.7	177	3.2	125	3.1	158	63.9	45	M	MT
19	13.6	73	3.0	209	3.1	158	50.4	187	M	T
20	12.6	111	3.1	170	3.1	158	46.7	223	M	T
21	12.0	152	3.2	125	3.1	158	59.2	86	M	T
22	11.4	207	3.3	69	3.2	86	56.5	121	M	T
23	10.9	258	3.2	125	3.1	158	64.5	39	M	MT
24	12.8	95	3.1	170	3.1	158	52.4	170	M	T
25	12.9	94	3.2	125	3.2	86	52.7	165	M	MS
26	11.5	189	3.1	170	3.0	242	46.2	226	M	T
27	14.0	63	3.0	209	3.1	158	49.7	198	M	VT
28	12.4	125	3.2	125	3.2	86	40.6	256	M	VT
29	13.6	72	3.1	170	3.2	86	41.7	248	M	MS
30	12.8	97	3.2	125	3.2	86	48.4	211	M	MT
31	13.0	90	3.0	209	3.1	158	38.5	263	M	Seg
32	11.3	216	3.2	125	3.1	158	62.1	58	M	MT
33	11.1	237	3.3	69	3.1	158	56.2	126	M	MT
34	11.4	207	3.3	69	3.1	158	45.7	229	M	MT
35	11.3	216	3.3	69	3.2	86	52.5	166	M	MT
36	11.5	189	3.2	125	3.2	86	52.3	171	M	MT
37	11.2	231	3.3	69	3.2	86	47.2	217	M	MT
38	11.8	167	3.1	170	3.0	242	49.9	194	M	MS
39	12.5	119	3.2	125	3.2	86	57.4	113	M	MS
40	12.7	103	3.1	170	3.1	158	55.2	137	M	MS
41	14.8	39	3.0	209	3.1	158	43.0	243	M	MT
42	10.7	270	3.3	69	3.1	158	62.4	56	E	S
43	12.2	139	3.0	209	3.0	242	57.9	104	M	MS
44	12.7	103	3.1	170	3.1	158	50.6	185	M	MT
45	14.1	60	3.1	170	3.2	86	53.8	153	M	MS
46	13.1	86	3.1	170	3.2	86	43.0	244	M	MT
47	13.7	69	3.1	170	3.2	86	43.3	238	M	MS
48	12.8	97	3.2	125	3.2	86	48.2	212	M	MS
49	13.7	71	3.1	170	3.2	86	54.6	144	M	MS
50	11.9	164	3.1	170	3.1	158	51.4	179	L	T

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

[2] E = early, M = medium, L = late

[3] S = short, M = medium height, T = tall

Table 19. Protein and lysine values with yield data, maturity, and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Yield q/ha	Yield rank	Maturity	Plant height
51	12.5	117	3.2	125	3.2	86	51.2	181	M	T
52	12.9	93	3.1	170	3.1	158	45.1	232	M	T
53	13.2	85	3.0	209	3.1	158	49.9	196	L	VT
54	11.6	185	3.4	35	3.3	30	65.7	29	M	MT
55	11.6	185	3.3	69	3.2	86	57.2	116	M	MT
56	11.2	227	3.3	69	2.1	158	54.1	152	M	MT
57	11.2	231	3.4	35	3.2	86	50.9	184	M	MT
58	11.1	237	3.5	8	3.3	30	60.0	79	M	MT
59	11.9	161	3.3	69	3.2	86	55.8	131	M	MT
60	11.7	181	3.3	69	3.3	30	55.9	129	M	MT
61	12.4	125	3.2	125	3.2	86	79.0	3	M	M
62	12.0	154	3.3	69	3.2	86	52.8	162	M	MT
63	12.6	108	3.2	125	3.3	30	54.5	146	M	M
64	11.4	207	3.3	69	3.2	86	64.9	36	M	MT
65	11.4	203	3.4	35	3.3	30	65.7	30	M	MT
66	11.5	195	3.4	35	3.3	30	64.9	37	M	T
67	11.3	221	3.2	125	3.1	158	68.1	21	M	MT
68	10.8	267	3.5	8	3.3	30	66.3	27	M	MT
69	10.6	272	3.5	8	3.3	30	58.3	97	M	MT
70	11.8	167	3.0	209	2.9	274	51.4	180	M	T
71	10.9	263	3.4	35	3.2	86	63.6	48	M	MS
72	10.7	270	3.3	69	3.1	158	63.1	51	M	S
73	10.4	278	3.4	35	3.1	158	60.0	76	M	MT
74	12.5	119	3.2	125	3.1	158	50.4	186	M	MT
75	14.5	48	3.0	209	3.1	158	47.0	221	M	T
76	12.1	146	3.3	69	3.3	30	52.1	174	M	MS
77	13.3	82	3.2	125	3.2	86	52.3	171	M	T
78	10.5	275	3.6	1	3.3	30	51.9	176	M	MS
79	11.7	181	3.3	69	3.1	158	51.5	178	M	T
80	11.1	240	3.4	35	3.3	30	53.3	157	M	S
81	12.1	143	3.2	125	3.1	158	57.4	114	M	MT
82	11.3	216	3.1	170	3.0	242	60.3	71	M	T
83	11.0	252	3.5	8	3.3	30	55.0	139	L	S
84	11.0	248	3.4	35	3.2	86	52.7	163	M	MS
85	12.2	135	3.3	69	3.2	86	67.6	23	M	T
86	11.9	158	3.2	125	3.1	158	39.5	260	L	S
87	12.1	149	3.1	170	3.1	158	56.3	125	M	T
88	11.4	203	3.2	125	3.1	158	58.9	90	M	T
89	11.4	201	3.2	125	3.1	158	66.5	26	M	T
90	10.6	273	3.3	69	3.1	158	49.8	197	M	T
91	11.4	210	3.2	125	3.1	158	61.6	64	M	T
92	10.9	254	3.4	35	3.2	86	64.1	42	M	T
93	10.6	273	3.4	35	3.2	86	59.8	80	M	T
94	11.9	161	3.2	125	3.2	86	58.1	101	M	MT
95	11.3	221	3.4	35	3.3	30	66.3	27	M	MS
96	11.2	223	3.1	170	3.1	158	62.0	59	M	T
97	12.1	146	3.2	125	3.2	86	49.2	205	M	MS
98	11.6	183	3.2	125	3.1	158	61.8	61	M	MS
99	11.8	174	3.1	170	3.1	158	59.8	81	M	T
100	11.4	203	3.2	125	3.1	158	57.5	109	M	MS

Table 19. Protein and lysine values with yield data, maturity, and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Yield q/ha	Yield rank	Maturity	Plant height
101	11.4	210	3.3	69	3.2	86	64.0	44	M	MS
102	12.1	146	3.2	125	3.1	158	56.3	124	L	T
103	12.4	122	3.0	209	3.0	242	50.2	190	L	MT
104	14.0	63	2.9	243	3.0	242	56.6	92	M	T
105	12.5	115	3.1	170	3.1	158	51.0	182	L	T
106	13.5	79	3.0	209	3.0	242	45.7	228	M	MT
107	12.7	101	3.1	170	3.1	158	61.8	62	M	T
108	14.5	46	2.9	243	3.0	242	49.9	195	M	MT
109	13.1	87	3.1	170	3.1	158	69.0	20	L	T
110	14.0	62	2.8	273	2.9	274	39.5	261	M	MT
111	13.3	80	2.9	243	3.0	242	49.6	201	M	T
112	14.3	54	2.9	243	3.0	242	50.9	183	M	T
113	11.7	177	3.5	8	3.4	10	54.4	148	L	T
114	12.0	156	3.3	69	3.2	86	60.1	74	M	T
115	11.3	213	3.3	69	3.2	86	55.9	130	M	T
116	11.1	240	3.3	69	3.2	86	50.4	187	L	T
117	12.0	150	3.1	170	3.1	158	49.3	204	M	T
118	14.5	49	3.0	209	3.0	242	58.5	96	L	T
119	14.1	58	2.9	243	3.0	242	45.2	231	M	MT
120	12.6	114	3.0	209	3.1	158	57.6	107	M	T
121	13.6	75	3.0	209	3.1	158	39.9	258	M	MT
122	10.7	268	3.2	125	3.0	242	55.2	136	E	S
123	12.6	108	3.1	170	3.1	158	55.4	135	M	MS
124	12.3	131	3.1	170	3.1	158	43.7	237	L	T
125	12.4	125	3.0	209	2.9	274	54.8	142	M	VT
126	14.4	50	2.9	243	3.1	158	57.9	102	M	MT
127	14.1	61	2.9	243	3.0	242	71.9	12	ME	MS
128	13.5	77	3.0	209	3.1	158	76.9	5	ME	MT
129	13.6	76	2.9	243	3.0	242	47.1	218	M	T
130	12.6	111	3.0	209	3.0	242	49.5	202	M	MT
131	11.0	244	3.4	35	3.3	30	50.1	192	L	T
132	11.2	227	3.4	35	3.3	30	52.5	168	M	T
133	11.3	221	3.3	69	3.2	86	49.1	207	M	VT
134	11.5	192	3.3	69	3.2	86	65.5	31	M	MT
135	11.5	192	3.3	69	3.2	86	57.5	112	L	T
136	11.8	170	3.3	69	3.2	86	40.9	253	M	MT
137	11.3	213	3.4	35	3.3	30	67.4	24	M	T
138	10.7	268	3.4	35	3.2	86	63.9	46	M	VT
139	10.9	258	3.3	69	3.2	86	58.6	94	M	MT
140	11.4	210	3.3	69	3.1	158	46.0	227	M	MT
141	10.5	277	3.3	69	3.1	158	61.7	63	M	MT
142	11.2	227	3.3	69	3.1	158	56.0	127	M	T
143	11.1	234	3.4	35	3.2	86	58.5	95	M	T
144	11.2	223	3.3	69	3.2	86	68.1	22	M	T
145	10.9	258	3.4	35	3.2	86	62.8	54	L	T
146	11.0	251	3.3	69	3.2	86	54.6	143	M	T
147	12.2	139	3.3	69	3.3	30	65.1	35	M	T
148	11.6	188	3.3	69	3.2	86	45.3	230	M	MT
149	11.1	234	3.2	125	3.1	158	60.4	70	M	T
150	11.4	210	3.3	69	3.2	86	56.7	120	M	T

Table 19. Protein and lysine values with yield data, maturity and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Yield q/ha	Yield rank	Maturity	Plant height
151	12.4	125	3.0	209	3.0	242	49.2	206	M	MS
152	11.2	225	3.3	69	3.1	158	61.9	60	M	MT
153	11.9	158	3.1	170	3.1	158	59.1	87	M	MT
154	12.6	113	3.1	170	3.1	158	39.6	259	M	T
155	10.9	254	3.1	170	2.9	274	51.8	177	M	T
156	12.6	108	3.1	170	3.1	158	48.8	210	M	MT
157	11.9	161	3.2	125	3.2	86	69.7	18	M	MT
158	11.8	174	3.3	69	3.3	30	53.0	160	L	MT
159	12.4	122	3.2	125	3.2	86	59.5	83	M	VT
160	10.8	265	3.4	35	3.2	86	53.0	160	L	MT
161	10.8	266	3.3	69	3.1	158	50.1	193	M	MT
162	12.1	143	3.1	170	3.0	242	63.6	49	M	T
163	10.9	258	3.4	35	3.2	86	71.0	14	L	S
164	12.4	121	3.3	69	3.2	86	64.3	41	L	T
165	12.3	130	3.2	125	3.2	86	49.4	203	M	T
166	13.5	78	3.2	125	3.3	30	57.3	115	M	MT
167	15.3	33	3.0	209	3.3	30	43.7	236	M	MS
168	15.3	33	3.1	170	3.3	30	44.6	233	M	MS
169	14.7	44	3.0	209	3.1	158	41.0	252	M	MT
170	12.0	156	3.5	8	3.4	10	54.9	141	M	S
171	11.0	248	3.5	8	3.4	10	61.2	66	M	S
172	13.3	84	3.3	69	3.3	30	46.3	225	M	S
173	12.5	117	3.4	35	3.4	10	48.8	209	M	S
174	11.1	242	3.5	8	3.3	30	58.9	89	M	S
175	11.3	218	3.5	8	3.4	10	59.6	82	M	MS
176	12.1	143	3.5	8	3.5	2	53.6	154	L	S
177	11.1	242	3.5	8	3.4	10	60.1	75	L	S
178	10.9	261	3.5	8	3.3	30	63.0	52	L	MS
179	13.9	68	3.2	125	3.3	30	76.4	7	M	MS
180	14.7	43	3.1	170	3.3	30	42.8	245	M	MS
181	17.8	9	2.9	243	3.1	158	31.5	272	M	MT
182	16.5	18	2.9	243	3.1	158	53.1	159	M	MT
183	16.0	24	3.0	209	3.2	86	50.3	189	M	MT
184	17.1	14	2.8	273	3.0	242	47.0	219	M	MT
185	16.1	21	3.0	209	3.2	86	35.9	266	M	MT
186	15.3	35	3.1	170	3.2	86	31.6	271	M	MT
187	11.7	177	3.3	69	3.3	30	60.0	78	M	MS
188	12.4	128	3.3	69	3.3	30	64.6	38	M	MS
189	11.8	167	3.5	8	3.4	10	58.6	93	M	MS
190	11.7	180	3.4	35	3.3	30	64.1	42	M	MS
191	11.8	172	3.4	35	3.3	30	57.7	106	L	S
192	12.7	103	3.3	69	3.3	30	50.2	190	M	S
193	11.7	177	3.4	35	3.3	30	58.2	100	M	MS
194	12.2	135	3.4	35	3.4	10	72.1	11	M	S
195	11.8	172	3.4	35	3.3	30	46.8	222	L	MS
196	12.2	141	3.3	69	3.3	30	47.9	215	L	MT
197	12.3	131	3.4	35	3.4	10	48.9	208	M	S
198	11.6	185	3.4	35	3.3	30	60.4	69	L	MS
199	11.5	198	3.5	8	3.4	10	54.3	150	L	MS
200	11.0	248	3.6	1	3.5	2	64.4	40	L	S

Table 19. Protein and lysine values with yield data, maturity and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Yield q/ha	Yield rank	Maturity	Plant height
201	14.7	42	2.9	243	3.1	158	48.0	214	L	MT
202	11.2	231	3.1	170	3.0	242	54.5	146	E	S
203	13.0	89	3.0	209	3.0	242	60.0	77	L	MT
204	11.5	198	3.6	1	3.5	2	65.5	32	L	MS
205	12.2	137	3.6	1	3.5	2	65.4	33	L	MS
206	12.7	103	3.3	69	3.3	30	52.4	169	M	MS
207	11.9	164	3.4	35	3.3	30	57.8	105	M	MS
208	11.0	252	3.5	8	3.4	10	52.7	164	L	MT
209	11.0	248	3.5	8	3.3	30	59.5	84	M	MS
210	11.8	170	3.4	35	3.3	30	73.1	10	M	MS
211	11.3	218	3.5	8	3.4	10	77.1	4	M	MS
212	11.0	248	3.5	8	3.3	30	62.1	57	L	MS
213	11.2	227	3.5	8	3.4	10	76.9	6	M	MS
214	10.9	261	3.6	1	3.4	10	61.2	65	M	S
215	10.5	275	3.6	1	3.4	10	69.6	19	M	MS
216	11.5	198	3.3	69	3.2	86	57.0	108	ME	S
217	16.9	16	3.0	209	3.2	86	38.1	264	M	MT
218	16.1	23	2.9	243	3.1	158	38.0	265	M	MT
219	14.2	55	3.1	170	3.2	86	43.1	242	L	MT
220	15.3	33	3.1	170	3.2	86	40.7	255	M	MT
221	18.4	4	2.8	273	3.0	242	31.0	273	M	MT
222	16.4	19	2.9	243	3.1	158	22.5	280	M	T
223	17.5	12	3.0	209	3.2	86	41.2	250	M	MT
224	17.1	14	3.2	125	3.4	10	33.2	269	M	MT
225	16.2	20	3.1	170	3.3	30	28.7	275	M	MS
226	17.4	13	3.0	209	3.2	86	29.6	274	M	MT
227	18.5	3	3.1	170	3.3	30	26.9	277	M	MT
228	18.6	2	2.9	243	3.1	158	26.3	278	M	MT
229	17.7	11	2.9	243	3.1	158	34.4	267	M	MT
230	18.1	7	2.8	273	3.1	158	26.3	279	M	MS
231	16.6	17	3.0	209	3.2	86	41.0	251	M	MS
232	17.8	9	2.7	278	2.9	274	43.2	241	M	MS
233	18.3	5	2.9	243	3.1	158	56.9	119	M	MS
234	18.7	1	2.9	243	3.1	158	34.4	268	M	MS
235	18.1	7	2.9	243	3.1	158	32.4	270	M	MT
236	18.2	6	2.9	243	3.1	158	41.5	249	M	MT
237	14.6	45	3.3	69	3.4	10	40.8	254	M	MT
238	14.9	38	3.2	125	3.3	30	28.1	276	M	MT
239	12.1	146	3.2	125	3.2	86	63.1	50	L	S
240	12.6	108	3.3	69	3.3	30	43.2	239	L	MS
241	12.8	97	3.0	209	3.1	158	60.1	73	M	MT
242	13.9	65	2.9	243	3.0	242	62.6	55	M	T
243	11.1	237	3.4	35	3.3	30	71.6	13	L	S
244	11.5	198	3.5	8	3.4	10	42.6	247	L	MT
245	12.9	91	3.5	8	3.6	1	70.3	16	M	MS
246	12.2	139	3.5	8	3.5	2	57.1	117	M	MS
247	12.2	135	3.5	8	3.5	2	70.9	15	M	MS
248	13.3	81	3.2	125	3.3	30	63.7	47	M	MS
249	12.9	91	3.4	35	3.5	2	70.1	17	M	MS
250	12.7	100	3.3	69	3.3	30	65.3	34	M	MS

Table 19. Protein and lysine values with yield data, maturity and plant height readings for entries in the first high protein-high lysine observation nursery grown at Yuma, Arizona in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank	Yield q/ha	Yield rank	Maturity	Plant height
251	11.5	192	3.5	8	3.3	30	58.3	98	M	MT
252	13.0	88	3.3	69	3.3	30	57.5	110	M	MS
253	12.5	117	3.4	35	3.4	10	87.3	1	L	MS
254	10.9	258	3.6	1	3.5	2	79.4	2	L	MS
255	14.1	58	3.1	170	3.2	86	43.2	239	ME	S
256	14.4	51	3.2	125	3.3	30	47.9	216	L	MT
257	14.2	57	3.2	125	3.3	30	53.2	158	M	MS
258	12.6	108	3.3	69	3.3	30	54.3	151	M	MS
259	11.9	161	3.4	35	3.3	30	60.7	68	M	MS
260	12.3	133	3.2	125	3.2	86	53.6	155	L	VT
261	15.8	26	2.9	243	3.1	158	43.9	234	E	S
262	14.8	40	2.9	243	3.1	158	38.8	262	ME	MS
263	13.9	65	2.9	243	3.0	242	57.9	102	E	S
264	15.5	30	2.9	243	3.1	158	52.0	175	ME	MS
265	16.1	22	2.7	278	2.9	274	49.7	199	ME	VS
266	15.9	25	2.9	243	3.0	242	42.6	246	ME	MS
267	15.7	28	2.7	278	2.9	274	48.0	213	ME	S
268	14.2	55	3.0	209	3.1	158	53.5	156	ME	MS
269	15.2	36	3.0	209	3.1	158	46.5	224	ME	MS
270	14.3	52	2.9	243	3.0	242	52.5	167	Seg	Seg
271	15.8	27	2.9	243	3.1	158	47.0	220	ME	MS
272	14.5	46	2.9	243	3.0	242	55.4	134	E	MS
273	14.8	40	3.0	209	3.2	86	49.6	200	ME	S
274	14.9	37	2.9	243	3.0	242	55.9	128	E	S
275	14.3	52	2.9	243	3.0	242	58.2	99	ME	S
276	15.7	29	2.8	273	3.0	242	43.8	235	ME	MS
277	13.9	67	3.0	209	3.1	158	57.5	111	ME	S
278	15.4	31	2.9	243	3.1	158	40.2	257	M	T
279	11.5	198	3.2	125	3.1	158	61.0	67	ME	MS
280	13.3	82	3.0	209	3.1	158	59.3	85	L	MT
Overall means	12.8		3.2		3.2		54.3			
$LSD_{.05}$ of the means	1.2		0.2		0.1		16.3			
Coefficient of variation (%)	7.0		3.9		3.0		21.6			

Correlation Coefficients

	Yield	Lysine/protein	Adjusted lysine
Protein	-.63**	-.75**	-.25**

** Significant at the .01 level

Check variety means:

Atlas 66	14.6	3.0	3.1	42.8
Bezostaya 1	12.8	3.0	3.1	58.1
Centurk	11.7	3.2	3.1	55.8
CI13449	11.1	3.4	3.3	68.2
CR8156	11.0	3.2	3.0	58.3
Lancota	12.3	3.1	3.0	60.4

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975.

Entry no.[1]	Heading days from 1/1	Seed grade[2]	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
1	146	G	24.9	14.9	154	3.1	50	MS	17	R
2	146	VG	34.3	17.2	247	2.9	35	MS	0	R
3	151	VP	6.3	15.8	3	3.6	--	--	25	S
4	148	M	19.1	15.0	26	3.4	25	MR	0	R
5	148	G	29.8	16.3	99	3.2	40	MS	5	MR
6	148	M-G	30.4	14.9	99	3.2	45	MS	0	R
7	148	P	13.9	16.8	26	3.4	20	MR	0	R
8	147	G	34.4	15.8	247	2.9	15	MS	0	R
9	148	P	15.8	14.7	154	3.1	25	MR	0	R
10	149	M	27.9	14.9	154	3.1	20	MS	30	MS
11	146	M-P	20.1	14.5	58	3.3	50	MS	15	MR
12	145	M-G	27.9	15.9	205	3.0	30	MS	0	R
13	146	M-G	40.2	16.1	154	3.1	30	MS	0	R
14	148	M-G	25.1	16.1	154	3.1	30	MS	0	R
15	147	G	31.1	15.6	247	2.9	40	MS	0	R
16	147	M-G	32.1	15.4	205	3.0	30	MS	0	R
17	147	M-G	23.8	16.9	205	3.0	10	MR	0	R
18	147	M-G	21.8	16.1	205	3.0	25	MR	0	R
19	146	G	26.1	16.6	247	2.9	25	MR	0	R
20	146	G	34.7	17.6	247	2.9	10	MR	25	MR
21	146	G	34.7	16.2	205	3.0	15	MR	5	MR
22	145	M	24.9	14.9	205	3.0	5	MR	0	R
23	145	M-G	32.4	14.9	205	3.0	5	MR	0	R
24	146	G	27.7	16.7	247	2.9	25	MR	0	R
25	145	M-P	23.3	15.7	154	3.1	50	MS	35	MS
26	144	M-G	38.9	15.8	271	2.8	30	MR	0	R
27	145	G	29.3	18.1	247	2.9	50	MS	60	MS
28	150	G	24.4	18.1	154	3.1	50	MS	50	MS
29	143	G	30.7	16.0	99	3.2	40	MS	40	MS
30	144	M-G	33.6	16.3	205	3.0	15	MR	20	MR
31	142	M	28.7	16.8	205	3.0	50	MS	0	R
32	144	M-G	47.7	15.0	154	3.1	40	MS	0	R
33	144	M-G	28.1	15.6	154	3.1	50	MS	0	R
34	144	M-G	22.4	15.2	154	3.1	30	MS	0	R
35	144	M-G	43.8	15.0	99	3.2	40	MS	0	R

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

[2] VP = very poor; P = poor; M = medium; G = good; VG = very good; E = excellent.

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Continued.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
36	144	G	32.9	15.2	154	3.1	40	MS	0	R
37	144	M-G	40.2	14.9	99	3.2	15	MR	0	R
38	145	M-P	31.9	17.6	154	3.1	25	MR	0	R
39	145	M	26.4	17.7	205	3.0	25	MR	0	R
40	145	M-G	35.3	17.6	205	3.0	10	MR	0	R
41	--	M	41.0	18.3	205	3.0	5	MR	5	MR
43 3/	147	G-VG	35.6	15.7	154	3.1	70	MS	90	S
44	146	M-G	41.7	17.7	205	3.0	40	MS	0	R
45	144	M-G	43.7	17.5	205	3.0	70	MS	0	R
46	147	M	34.1	17.1	99	3.2	60	MS	0	R
47	144	M-G	32.2	17.1	247	2.9	80	S	0	R
48	145	M	39.1	17.3	205	3.0	75	S	0	R
49	145	M-G	32.1	16.5	154	3.1	70	MS	30	MS
50	145	G	29.7	15.7	154	3.1	90	MS	0	R
51	145	M	29.8	16.2	99	3.2	40	MS	0	R
52	144	G	35.0	16.4	154	3.1	10	MR	0	R
53	150	G	29.9	17.1	154	3.1	40	MS	0	R
54	150	M-G	31.1	16.3	58	3.3	60	MS	0	R
55	147	M-G	27.6	15.5	58	3.3	85	S	0	R
56	148	M	32.4	14.3	5	3.5	75	S	0	R
57	146	M-P	36.4	14.7	26	3.4	25	MR	25	MR
58	147	M	28.5	14.5	58	3.3	90	S	0	R
59	147	M	31.9	15.6	26	3.4	80	MS	0	R
60	148	P	34.2	14.8	26	3.4	60	MS	0	R
61	147	P	30.3	15.7	58	3.3	80	S	0	R
62	148	P	21.2	15.4	5	3.5	95	S	0	R
63	147	M	34.9	15.0	58	3.3	90	S	0	R
64	147	G-VG	30.9	16.9	99	3.2	85	S	0	R
65	147	G	21.8	15.9	5	3.5	80	S	5	MR
66	147	G	26.6	14.5	26	3.4	40	MS	0	R
67	147	G	34.7	14.8	99	3.2	40	MS	0	R
68	148	M-P	26.8	14.8	5	3.5	65	S	0	R
69	147	M	31.8	14.6	26	3.4	70	S	0	R
70	147	G	31.2	16.2	154	3.1	5	MR	0	R
71	151	P	19.9	14.4	26	3.4	5	MR	0	R

3/ Missing entries were winter killed or were not harvested.

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Continued.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
72	152	P-VP	21.5	16.2	26	3.4	40	MS	0	R
73	147	P	23.4	13.9	99	3.2	40	MS	0	R
74	149	G	32.3	17.1	205	3.0	10	MR	0	R
75	151	G	30.9	17.3	99	3.2	40	MS	0	R
76	150	P	22.0	15.7	58	3.3	40	MS	0	R
77	150	M-G	43.5	17.5	99	3.2	15	MR	0	R
78	151	P	10.4	15.0	26	3.4	50	MS	0	R
79	149	M-G	29.9	16.3	99	3.2	10	MR	20	MS
80	151	M	23.7	14.7	55	3.5	60	S	0	R
81	147	G	37.0	14.5	154	3.1	50	MS	0	R
82	147	G-VG	40.5	16.7	205	3.0	5	MR	0	R
83	152	VP	3.0	16.4	5	3.5	80	S	80	S
84	151	P	23.1	15.1	26	3.4	70	S	0	R
85	148	G	44.5	15.5	99	3.2	70	S	0	R
86	152	VP	7.7	18.2	99	3.2	80	S	0	R
87	151	G	36.2	16.9	205	3.0	5	MR	5	MR
88	148	G	26.9	16.5	205	3.0	20	MR	0	R
89	148	G	35.8	14.9	154	3.1	30	MR	5	MR
90	148	G-VG	30.0	15.1	154	3.1	50	MS	0	R
91	148	G	25.2	15.8	247	2.9	20	MR	10	MR
92	148	G	35.4	15.5	99	3.2	5	MR	0	R
93	148	M-G	33.1	14.4	58	3.3	15	MR	5	MR
94	148	M-G	26.9	15.5	154	3.1	10	MR	50	MS
95	147	P	23.9	15.4	154	3.1	40	MS	0	R
96	145	G	47.2	14.9	247	2.9	40	MS	0	R
97	147	M-P	30.7	16.8	205	3.0	10	MR	0	R
98	151	P	26.2	16.5	99	3.2	10	MR	0	R
99	148	G	49.2	16.1	205	3.0	15	MR	0	R
100	152	P	16.5	15.8	99	3.2	10	MR	0	R
101	150	M	34.0	15.2	58	3.3	3	MR	0	R
102	151	M-G	34.7	17.6	205	3.0	5	MR	0	R
103	151	G	27.9	18.2	154	3.1	55	MS	0	R
104	147	G	32.3	16.8	205	3.0	80	S	0	R
105	149	M-G	24.6	16.8	154	3.1	60	MS	10	MR
106	147	G	32.1	16.2	205	3.0	75	MS	50	MS
107	148	G	33.2	16.3	247	2.9	50	MS	5	MR
108	144	G	33.1	15.5	154	3.1	90	S	0	R
109	147	G	35.3	17.3	205	3.0	5	MS	0	R
110	143	G	18.5	18.2	247	2.9	50	MS	0	R
111	145	M	28.3	16.8	247	2.9	40	MS	0	R

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Continued.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
112	150	G	24.5	18.2	154	3.1	30	MS	0	R
113	150	M	28.2	17.3	58	3.3	30	MS	0	R
114	149	M-G	26.7	17.1	58	3.3	25	MS	0	R
115	148	M	28.8	16.3	154	3.1	30	MS	0	R
116	150	M	25.4	16.1	99	3.2	25	MR	0	R
117	150	P	31.7	17.0	154	3.1	70	S	0	R
118	151	M	23.7	17.8	247	2.9	60	MS	0	R
119	146	G	29.4	18.1	247	2.9	75	S	0	R
120	147	M-G	37.3	16.3	154	3.1	30	MS	5	MR
121	--	M	29.1	19.0	205	3.0	30	MS	0	R
123	146	G-VG	30.0	15.7	247	2.9	65	S	50	S
124	147	M	29.4	16.6	99	3.2	50	MS	0	R
125	147	G	37.9	17.5	247	2.9	15	MR	0	R
126	143	G	27.7	17.4	205	3.0	40	MS	0	R
127	143	G	32.3	16.8	154	3.1	40	MS	0	R
128	143	M-G	15.2	18.5	205	3.0	40	MS	0	R
129	144	M	23.4	16.6	247	2.9	40	MS	0	R
130	144	M	27.7	16.9	205	3.0	70	S	0	R
131	147	M-G	20.9	16.6	58	3.3	60	MS	0	R
132	146	M-G	24.5	16.2	58	3.3	50	MS	0	R
133	147	M-G	26.2	16.8	99	3.2	40	MS	10	MR
134	145	M-G	25.1	15.0	99	3.2	50	MS	0	R
135	147	G	28.6	17.0	205	3.0	40	MS	0	R
136	147	P	26.6	15.5	58	3.3	60	MS	0	R
137	148	M-G	31.6	16.3	58	3.3	40	MS	0	R
138	148	M	30.3	15.7	58	3.3	40	MS	0	R
139	146	P	21.2	15.6	99	3.2	75	S	0	R
140	144	M-G	26.4	14.8	99	3.2	70	S	0	R
141	145	P	3.9	15.1	58	3.3	80	S	15	MR
142	146	M	26.8	16.0	99	3.2	75	S	0	R
143	148	M	23.0	15.7	99	3.2	75	MS	0	R
144	148	M-G	28.1	15.2	154	3.1	70	MS	0	R
145	148	M	23.1	16.3	58	3.3	50	MS	10	MR
146	148	M	30.7	16.0	99	3.2	40	MS	0	R
147	147	G	37.0	16.3	99	3.2	40	MS	0	R
148	146	M	27.1	15.4	26	3.4	75	MS	0	R
149	147	M	36.5	15.7	154	3.1	60	MS	0	R
150	146	M-P	23.1	17.0	26	3.4	50	MS	0	R
151	144	G	33.1	14.9	154	3.1	50	S	-	MR
152	149	M-G	34.4	15.5	99	3.2	--	S	-	--

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Continued.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
153	144	M	34.4	15.3	99	3.2	80	S	1	MS-MR
154	145	G	37.0	16.8	154	3.1	45	S	10	MS
155	145	M-G	28.5	16.3	154	3.1	50	S	10	S
156	145	G	28.3	16.1	205	3.0	50	S	5	MS
157	145	G	37.7	15.0	154	3.1	30	MS	0	R
158	148	M	34.9	15.4	26	3.4	20	S	10	S
159	147	G	31.3	16.4	99	3.2	20	MS	15	S
160	150	M	31.2	15.4	26	3.4	--	MR	0	R
161	147	G	37.1	14.9	26	3.4	60	S	10	MS
162	147	G	38.2	17.1	205	3.0	40	S	0	R
163	152	VP	3.9	15.4	26	3.4	--	MR	0	R
164	148	M-G	28.6	15.7	58	3.3	80	S	10	MS
165	148	G	31.0	16.4	99	3.2	75	S	--	--
166	149	P	13.4	19.0	99	3.2	40	S	--	--
167	148	M	23.9	19.1	99	3.2	60	S	60	S
168	148	P	25.5	20.6	99	3.2	60	S	30	S
169	148	M-P	22.0	20.0	247	2.9	70	S	--	--
170	147	P	11.5	18.6	99	3.2	80	S	10	S
171	149	VP	9.4	22.1	26	3.4	85	S	20	MS
172	146	P	16.9	18.5	26	3.4	85	S	40	S
173	147	VP	16.3	18.2	26	3.4	90	S	50	S
174	149	VP	12.9	16.9	5	3.5	90	S	15	S
175	150	VP	9.4	17.1	26	3.4	90	S	20	S
176	149	VP	9.0	16.5	58	3.3	90	S	10	S
177	147	VP	12.3	17.2	26	3.4	50	S	15	MS
178	146	VP	20.1	16.1	58	3.3	60	S	15	S
179	--	P	1.0	19.3	99	3.2	90	S	10	S
180	146	P	15.5	19.9	205	3.0	90	S	--	--
181	149	P	3.9	22.7	205	3.0	60	S	20	S
182	146	P	14.4	20.2	205	3.0	80	S	10	MS
183	148	M-P	18.5	19.9	154	3.1	80	S	--	MS
184	151	P	0.1	26.5	247	2.9	90	S	--	--
185	151	VP	0.8	25.7	205	3.0	80	S	0	R
186	150	VP	6.3	22.4	99	3.2	90	S	--	MS
187	148	VP	4.4	19.1	154	3.1	90	S	20	S
188	146	M-P	11.8	13.9	99	3.2	70	S	50	MS
189	145	P	10.5	16.5	26	3.4	80	S	5	MS
190	145	P	6.8	15.0	99	3.2	70	S	10	MS
191	145	P	15.2	15.9	26	3.4	70	S	15	S
192	145	P	12.7	16.1	58	3.3	50	S	10	MS

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Continued.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
193	147	P	6.2	16.9	99	3.2	60	S	30	S
194	146	P	10.3	16.2	99	3.2	70	S	40	S
195	147	P	14.5	16.4	58	3.3	70	S	30	S
196	149	P	9.1	18.1	58	3.3	60	S	30	S
197	149	VP	12.6	18.4	58	3.3	60	S	20	S
198	149	P	5.3	17.1	58	3.3	60	S	40	S
199	148	P	6.1	17.6	154	3.1	70	S	15	S
200	149	VP	8.4	16.5	26	3.4	60	S	5	S
201	146	G	42.7	19.0	205	3.0	40	S	5	MR
203	146	G-VG	9.6	15.8	247	2.9	70	S	15	S
204	148	VP	5.0	16.4	99	3.2	50	S	5	MS
205	147	P	10.0	18.4	26	3.4	70	S	15	S
206	146	VP	7.1	17.9	99	3.2	80	S	40	S
207	146	VP	12.8	17.0	58	3.3	80	S	40	S
208	149	P	19.1	17.8	58	3.3	80	S	40	S
209	147	VP	14.7	15.9	5	3.5	80	S	40	S
210	146	VP	11.8	17.6	58	3.3	85	S	60	S
211	146	VP	15.7	15.5	5	3.5	70	S	70	S
212	147	P	15.1	15.5	99	3.2	80	S	60	S
213	147	VP	4.2	15.6	5	3.5	50	S	--	--
214	146	VP	2.9	16.7	154	3.1	80	S	70	S
215	146	VP	5.4	17.8	99	3.2	80	S	30	S
217[4/]	--	VP	0.2	25.0	154	3.1	80	S	--	--
218	--	P	0.1	22.8	58	3.3	100	S	--	--
219	--	VP	0.1	20.9	154	3.1	100	S	--	--
220	--	P	0.1	22.6	205	3.0	70	S	--	--
221	--	VP	1.0	24.4	154	3.1	70	S	--	--
222	--	VP	0.8	24.6	247	2.9	5	MR-R	--	--
223	--	VP	0.4	24.1	5	3.5	100	S	--	--
224	--	VP	0.1	26.5	58	3.3	90	S	--	--
225	--	VP	2.4	24.0	26	3.4	60	S	--	--
226	--	VP	0.1	24.8	58	3.3	100	S	--	--
227	--	VP	0.6	23.7	26	3.4	50	MS-MR	--	--
228	--	VP	1.8	24.6	58	3.3	20	MS-MR	--	--
229	--	P	0.1	25.5	58	3.3	50	S	--	--
230	--	VP	0.7	24.6	58	3.3	70	S	--	--
231	--	VP	1.0	22.1	58	3.3	70	S	--	--
232	--	VP	0.1	24.7	154	3.1	70	S	--	--
233	--	VP	0.4	25.8	26	3.4	70	S	--	--
234	--	VP	0.7	26.1	99	3.2	50	S	--	--

[4/] Entries 217 through 280 were planted in the spring.

Table 20. Agronomic, disease, protein, and lysine data for entries in the first high protein-high lysine observation nursery grown at Lincoln, Nebraska in 1975. Concluded.

Entry no.	Heading days from 1/1	Seed grade	Yield q/ha	Protein %	Protein rank	Lysine/ protein %	Leaf rust Sev.	Leaf rust Resp.	Stem rust Sev.	Stem rust Resp.
235	--	P	3.1	24.0	99	3.2	50	S	--	--
236	--	P	2.2	23.6	99	3.2	15	MS-MR	--	--
237	--	P	5.1	22.0	99	3.2	60	S	--	--
238	--	VP	4.7	21.3	58	3.3	70	S	--	--
239	--	VP	0.1	19.4	5	3.5	100	S	--	--
240	--	VP	4.9	18.5	5	3.5	80	S	--	--
242	--	P-M	0.1	21.2	205	3.0	--	--	--	--
244	--	P	3.0	15.5	5	3.5	100	S	--	--
245	--	P	0.1	21.1	5	3.5	90	S	--	--
246	--	VP	0.1	19.2	2	3.7	90	S	--	--
247	--	P	0.1	18.8	3	3.6	100	S	--	--
248	--	VP	1.9	19.2	26	3.4	100	S	--	--
249	--	VP	0.1	19.2	26	3.4	90	S	--	--
250	--	VP	1.9	18.5	5	3.5	85	S	--	--
251	--	VP	1.4	19.4	5	3.5	80	S	--	--
252	--	VP	0.4	18.5	5	3.5	90	S	--	--
253	--	VP	0.1	--	-	--	95	S	--	--
254	--	VP	0.1	19.1	1	4.0	90	S	--	--
255	159	P	1.6	20.6	58	3.3	90	S	--	--
256	--	P-M	4.8	17.3	5	3.5	90	S	--	--
257	--	VP	0.8	19.6	5	3.5	100	S	--	--
258	--	VP	1.6	17.6	26	3.4	95	S	--	--
259	157	VP	3.0	19.2	5	3.5	50	S	--	--
261	155	M-G	8.7	21.0	154	3.1	5	MR-R	--	--
262	157	M	4.9	19.0	58	3.3	90	S	--	--
263	155	M	7.5	19.2	154	3.1	40	S	--	--
264	154	M-G	16.0	19.8	205	3.0	15	MS-MR	--	--
265	157	M	6.5	21.3	154	3.1	1	MR-R	--	--
266	158	M-G	6.7	20.2	205	3.0	1	MR-R	--	--
267	157	P-M	6.0	21.7	247	2.9	1	MS-MR	--	--
268	157	M-P	8.4	19.9	58	3.3	20	S	--	--
269	156	M	9.8	19.6	99	3.2	1	MR-R	--	--
270	155	P-M	7.3	19.8	99	3.2	10	S-MR	--	--
271	157	M-P	6.7	19.4	99	3.2	40	S	--	--
272	158	M	4.8	19.5	154	3.1	1	MR-R	--	--
273	158	P	3.9	20.9	154	3.1	20	S-MR	--	--
274	154	M	9.8	21.4	247	2.9	1	MR	--	--
275	155	M	5.0	20.1	154	3.1	10	MS-MR	--	--
276	157	M	5.4	20.3	99	3.2	1	MR	--	--
277	158	P	3.1	19.2	99	3.2	10	S-MR	--	--
278	--	P	0.1	24.3	205	3.0	1	MR-R	--	--
279	--	P	5.7	16.0	58	3.3	20	S	--	--

Table 21. Protein and lysine values for the entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975.

Entry no. 1/	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
1	14.4	247	3.0	135	3.1	169
2	15.7	179	2.8	228	3.0	229
3	14.4	247	3.2	48	3.3	82
4	15.3	197	3.1	93	3.3	82
5	15.2	202	3.0	135	3.1	169
6	14.1	262	3.2	48	3.4	41
7	16.0	161	2.9	173	3.1	169
8	15.0	223	3.0	135	3.2	130
9	14.4	247	3.2	48	3.3	82
10	14.2	257	3.0	135	3.2	130
11	13.5	268	3.3	23	3.3	82
12	16.4	147	2.9	173	3.1	169
13	15.6	183	2.9	173	3.1	169
14	15.4	192	3.0	135	3.2	130
15	14.4	247	3.0	135	3.1	169
16	14.1	262	3.0	135	3.1	169
17	17.1	125	2.8	228	3.0	229
18	16.0	161	3.0	135	3.2	130
19	15.1	212	2.9	173	3.1	169
20	15.9	166	2.8	228	3.0	229
21	14.9	230	2.9	173	3.1	169
22	14.3	253	3.0	135	3.2	130
23	14.4	247	2.8	228	3.0	229
24	15.7	179	2.9	173	3.0	229
25	15.2	202	3.1	93	3.3	82
26	15.4	192	2.8	228	3.0	229
27	17.2	119	2.7	256	2.9	258
28	16.9	130	2.9	173	3.1	169
29	16.2	154	3.0	135	3.2	130
30	16.0	161	2.8	228	3.0	229
31	16.4	147	2.9	173	3.1	169
32	14.1	262	3.0	135	3.2	130
33	13.8	267	3.2	48	3.3	82
34	14.9	230	3.0	135	3.2	130
35	15.1	212	3.1	93	3.3	82
36	14.9	230	3.1	93	3.3	82
37	14.3	253	3.1	93	3.2	130
38	18.2	82	2.7	256	3.0	229
39	18.3	76	2.7	256	2.9	258
40	18.2	82	2.8	228	3.0	229
41	20.8	13	2.6	268	2.8	270
42 2/	18.1	86	2.7	256	2.9	258
44	19.0	46	2.7	256	2.9	258
45	17.5	107	2.8	228	3.0	229
46	16.5	142	2.9	173	3.1	169
47	18.0	88	2.8	228	3.0	229
48	18.5	64	3.0	135	3.2	130
49	18.3	76	2.9	173	3.1	169
50	16.2	154	2.9	173	3.1	169
51	18.5	64	2.7	256	3.0	229

1/ Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

2/ Missing entries were not harvested.

Table 21. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine %	Adjusted lysine rank
52	18.4	71	2.9	173	3.1	169
53	17.0	128	2.9	173	3.1	169
54	15.7	179	3.2	48	3.3	82
55	15.0	223	3.1	93	3.3	82
56	14.2	257	3.2	48	3.3	82
57	14.8	237	3.3	23	3.4	41
58	14.2	257	3.3	23	3.5	19
59	14.8	237	3.2	48	3.4	41
60	14.8	237	3.1	93	3.2	130
61	15.0	223	3.2	48	3.3	82
62	15.0	223	3.3	23	3.5	19
63	15.0	223	3.2	48	3.4	41
64	16.4	147	3.1	93	3.3	82
65	15.1	212	3.3	23	3.4	41
66	15.1	212	3.0	135	3.2	130
67	15.1	212	3.1	93	3.3	82
68	14.9	230	3.2	48	3.4	41
69	15.1	212	3.2	48	3.4	41
70	16.1	158	2.7	256	2.9	258
71	15.1	212	3.1	93	3.3	82
72	16.2	154	3.1	93	3.3	82
73	13.9	266	3.2	48	3.4	41
74	17.8	96	2.9	173	3.1	169
75	17.8	96	3.0	135	3.2	130
76	17.1	125	3.0	135	3.2	130
77	18.8	53	2.8	228	3.0	229
78	16.0	161	3.2	48	3.4	41
79	17.9	91	2.9	173	3.2	130
80	15.5	187	3.2	48	3.4	41
81	15.8	172	2.9	173	3.1	169
82	16.5	142	2.8	228	3.0	229
83	15.3	197	3.4	12	3.6	7
84	15.4	192	3.2	48	3.3	82
85	15.4	192	3.2	48	3.4	41
86	19.2	39	3.0	135	3.2	130
87	17.6	103	2.9	173	3.1	169
88	16.6	138	2.9	173	3.1	169
89	15.1	212	3.0	135	3.1	169
90	15.1	212	3.1	93	3.3	82
91	16.5	142	3.0	135	3.2	130
92	15.9	166	3.1	93	3.3	82
93	14.4	247	3.2	48	3.3	82
94	14.4	247	3.3	23	3.4	41
95	15.3	197	3.2	48	3.4	41
96	15.0	223	3.0	135	3.2	130
97	17.3	114	2.9	173	3.1	169
98	16.3	150	2.9	173	3.1	169
99	15.8	172	2.9	173	3.1	169
100	15.5	187	3.0	135	3.2	130
101	17.8	96	3.0	135	3.2	130

Table 21. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
102	19.2	39	2.7	256	2.9	258
103	19.2	39	2.9	173	3.2	130
104	18.5	64	2.9	173	3.1	169
105	19.2	35	2.8	228	3.0	229
106	16.2	154	2.9	173	3.1	169
107	18.1	86	2.9	173	3.1	169
108	17.1	125	2.9	173	3.1	169
109	18.2	82	2.9	173	3.1	169
110	18.5	64	2.7	256	2.9	258
111	18.8	53	2.6	268	2.8	270
112	19.1	43	2.9	173	3.1	169
113	18.9	50	3.1	93	3.3	82
114	18.5	64	3.0	135	3.2	130
115	17.1	125	3.1	93	3.3	82
116	17.2	119	3.1	93	3.3	82
117	19.5	30	2.7	256	2.9	258
118	20.6	16	2.9	173	3.1	169
119	20.8	13	3.0	135	3.2	130
120	20.6	16	2.9	173	3.1	169
121	21.6	8	2.8	228	2.9	258
123	18.0	88	3.0	135	3.2	130
124	19.3	35	2.9	173	3.1	169
125	19.2	39	2.8	228	3.0	229
126	19.8	26	2.8	228	3.0	229
127	19.9	23	2.9	173	3.1	169
128	20.4	18	2.9	173	3.1	169
129	19.2	39	2.7	256	2.9	258
130	19.2	39	2.9	173	3.1	169
131	19.4	32	3.1	93	3.3	82
132	18.5	64	3.1	93	3.4	41
133	18.6	59	3.2	48	3.4	41
134	18.3	76	3.2	48	3.4	41
135	19.5	30	2.9	173	3.1	169
136	18.4	71	3.2	48	3.4	41
137	18.3	76	3.1	93	3.3	82
138	18.7	57	3.0	135	3.2	130
139	17.9	91	3.1	93	3.3	82
140	18.2	82	3.1	93	3.3	82
141	15.7	179	3.2	48	3.4	41
142	15.8	172	3.1	93	3.3	82
143	16.2	154	3.2	48	3.4	41
144	15.5	187	3.3	23	3.5	19
145	16.0	161	3.2	48	3.4	41
146	16.5	142	3.2	48	3.4	41
147	15.3	197	3.2	48	3.4	41
148	15.2	202	3.2	48	3.4	41
149	15.7	179	3.1	93	3.2	130
150	15.4	192	3.3	23	3.5	19
151	15.1	212	3.2	48	3.3	82
152	15.0	223	3.2	48	3.4	41

Table 21. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
153	17.4	110	3.0	135	3.2	130
154	17.5	107	2.8	228	3.0	229
155	17.2	119	2.9	173	3.1	169
156	15.6	183	2.9	173	3.1	169
157	15.6	183	3.1	93	3.3	82
158	15.5	187	3.3	23	3.4	41
159	16.7	135	3.2	48	3.4	41
160	15.8	172	3.1	93	3.3	82
161	15.8	172	3.1	93	3.3	82
162	17.3	114	2.9	173	3.1	169
163	14.1	262	3.3	23	3.4	41
164	17.8	96	3.1	93	3.3	82
165	18.5	64	3.0	135	3.2	130
166	23.1	2	3.0	135	3.2	130
167	21.9	6	3.1	93	3.3	82
168	24.2	1	3.0	135	3.1	169
169	21.8	7	2.9	173	3.1	169
170	18.4	71	3.2	48	3.4	41
171	21.1	12	3.2	48	3.4	41
172	19.6	29	3.2	48	3.4	41
173	18.5	64	3.3	23	3.5	19
174	17.0	128	3.3	23	3.5	19
175	16.8	133	3.3	23	3.5	19
177	16.2	154	3.5	4	3.7	3
178	16.4	147	3.2	48	3.4	41
179	18.5	64	3.2	48	3.4	41
180	19.9	23	3.2	48	3.4	41
181	22.8	4	3.0	135	3.2	130
182	21.4	10	3.0	135	3.2	130
183	20.1	20	3.3	23	3.5	19
184	22.7	5	2.9	173	3.1	169
185	22.9	3	3.0	135	3.1	169
186	21.6	8	3.1	93	3.2	130
187	18.4	71	3.2	48	3.4	41
188	14.9	230	3.2	48	3.3	82
189	17.2	119	3.0	135	3.2	130
190	14.8	237	3.4	12	3.5	19
191	16.8	133	3.4	12	3.6	7
192	16.6	138	3.1	93	3.3	82
193	18.5	64	3.0	135	3.2	130
194	17.5	107	3.3	23	3.5	19
195	18.2	82	3.1	93	3.3	82
196	20.4	18	3.1	93	3.3	82
197	19.7	28	3.1	93	3.4	41
198	19.1	43	3.3	23	3.5	19
199	18.7	57	3.3	23	3.6	7
200	17.2	119	3.3	23	3.5	19
201	18.9	50	2.8	228	3.0	229
202	15.9	166	3.0	135	3.2	130
203	16.8	133	2.9	173	3.1	169

Table 21. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
204	15.8	172	3.3	23	3.5	19
205	15.2	202	3.5	4	3.6	7
206	16.2	154	3.3	23	3.5	19
207	16.5	142	3.2	48	3.5	19
208	15.9	166	3.1	93	3.3	82
209	15.8	172	3.5	4	3.7	3
210	16.6	138	3.6	3	3.8	1
211	14.3	253	3.4	12	3.6	7
212	14.5	242	3.5	4	3.6	7
213	14.1	262	3.4	12	3.6	7
214	15.1	212	3.4	12	3.6	7
215	15.1	212	3.2	48	3.4	41
216	14.6	241	3.3	23	3.5	19
217	20.0	22	2.9	173	3.1	169
218	19.3	35	2.9	173	3.1	169
219	17.7	101	3.2	48	3.4	41
220	17.7	101	3.2	48	3.4	41
221	18.8	53	2.9	173	3.1	169
222	19.0	46	2.6	268	2.8	270
223	17.7	101	3.1	93	3.3	82
224	19.8	26	3.0	135	3.2	130
225	18.3	76	3.0	135	3.2	130
226	17.9	91	2.8	228	3.1	169
227	19.8	26	3.1	93	3.3	82
228	18.2	82	3.2	48	3.4	41
229	17.3	114	2.9	173	3.1	169
230	18.3	76	2.9	173	3.1	169
231	18.9	50	3.1	93	3.3	82
232	18.8	53	2.7	256	3.0	229
233	20.1	20	2.8	228	3.0	229
234	21.3	11	2.8	228	3.0	229
235	20.7	15	2.8	228	3.0	229
236	17.9	91	2.9	173	3.1	169
237	18.7	57	3.1	93	3.3	82
238	19.4	32	3.1	93	3.3	82
239	15.8	172	3.1	93	3.3	82
240	15.6	183	3.1	93	3.3	82
241	14.3	253	3.1	93	3.2	130
242	14.9	230	2.8	228	2.9	258
243	12.7	271	3.3	23	3.3	82
244	14.1	262	3.4	12	3.5	19
245	14.8	237	3.4	12	3.6	7
246	15.4	192	3.4	12	3.5	19
247	15.1	212	3.4	12	3.5	19
248	14.9	230	3.5	4	3.7	3
249	15.1	212	3.5	4	3.6	7
250	14.4	247	3.3	23	3.5	19
251	15.2	202	3.5	4	3.6	7
252	14.5	242	3.5	4	3.6	7
253	12.3	272	3.8	1	3.8	1

Table 21. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Stillwater, Oklahoma in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine %	Adjusted lysine rank
254	13.1	269	3.7	2	3.7	3
255	14.2	257	3.3	23	3.4	41
256	14.8	237	3.3	23	3.5	19
257	15.1	212	3.2	48	3.3	82
258	14.8	237	3.2	48	3.4	41
260	12.9	270	3.4	12	3.5	19
261	19.0	46	2.6	268	2.9	258
262	17.6	103	2.9	173	3.1	169
265	17.2	119	2.9	173	3.1	169
266	17.1	125	2.8	228	3.1	169
267	17.3	114	2.8	228	3.0	229
268	17.8	96	2.9	173	3.1	169
269	17.3	114	2.9	173	3.1	169
270	16.7	135	2.9	173	3.2	130
271	16.9	130	2.9	173	3.1	169
272	16.0	161	2.8	228	3.0	229
273	17.5	107	2.8	228	3.0	229
275	17.4	110	2.8	228	3.0	229
276	17.5	107	2.7	256	3.0	229
277	17.8	96	2.9	173	3.1	169
278	19.0	46	2.8	228	3.0	229
280	16.4	147	2.9	173	3.1	169

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.48**	-.41**

** Significant at the .01 level.

Means of check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	20.1	2.7	2.9
Bezostaya 1	17.3	2.9	3.1
Lancota	16.1	2.8	3.0
Centurk	15.1	3.0	3.2
CI13449	14.1	3.3	3.4
Overall means	16.5	3.0	3.1
$LSD_{.05}$ of the means	1.1	0.1	0.1
Coefficient of variation (%)	4.4	2.4	2.7

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975.

Entry no. [1]	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
1	12.8	213	3.0	132	3.1	118
2	13.0	205	2.8	213	2.8	272
3	10.9	274	3.7	1	3.6	8
4	10.6	276	3.3	33	3.1	118
5	10.5	278	3.3	33	3.0	176
6	11.7	255	3.2	60	3.1	118
7	11.6	260	3.2	60	3.1	118
8	12.5	224	3.1	89	3.1	118
9	12.2	240	3.3	33	3.3	45
10	11.9	250	3.2	60	3.1	118
11	11.5	263	3.3	33	3.2	71
12	15.4	87	2.9	167	3.1	118
13	13.9	156	2.9	167	3.0	176
14	12.8	213	2.9	167	3.0	176
15	12.8	213	3.1	89	3.1	118
16	13.5	178	2.9	167	3.0	176
17	14.4	136	3.0	132	3.1	118
18	13.8	163	3.0	132	3.1	118
19	15.7	75	2.6	274	2.8	272
20	13.4	187	2.9	167	2.9	237
21	12.0	246	3.0	132	2.9	237
22	12.4	229	3.1	89	3.1	118
23	11.6	260	2.9	167	2.9	237
24	13.8	163	2.8	213	2.9	237
25	13.5	178	3.1	89	3.2	71
26	12.5	224	3.0	132	3.0	176
27	15.1	99	2.7	251	2.9	237
28	12.3	235	3.1	89	3.1	118
29	15.5	83	2.7	251	2.9	237
30	15.3	92	2.8	213	3.0	176
31	15.7	75	2.8	213	3.0	176
32	13.3	195	2.9	167	3.0	176
33	13.9	156	2.9	167	3.0	176
34	13.4	187	2.9	167	3.0	176
35	12.8	213	3.1	89	3.1	118
36	12.6	219	3.2	60	3.2	71
37	12.4	229	3.1	89	3.1	118
38	14.0	151	2.8	213	2.9	237
39	15.2	96	2.7	251	2.9	237
40	14.8	109	2.7	251	2.8	272
41	13.8	163	2.8	213	2.9	237
42	12.3	235	2.9	167	2.9	237
43	12.4	229	2.9	167	2.9	237
44	14.1	147	2.8	213	2.9	237
45	15.0	102	2.7	251	2.9	237
46	13.6	172	2.9	167	3.0	176
47	14.2	143	2.9	167	3.1	118
48	14.7	115	2.9	167	3.0	176
49	13.9	156	2.9	167	3.0	176
50	13.4	187	2.9	167	3.0	176

[1] Entries 1, 81, 161, 241 are Centurk; 2, 82, 162, 242 are Lancota; 3, 83, 163, 243 are CI13449; 41, 121, 201, 278 are Atlas 66; 42, 122, 202, 279 are CR8156; 43, 123, 203, 280 are Bezostaya 1.

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
51	14.6	123	2.9	167	3.0	176
52	15.6	79	2.7	251	2.9	237
53	13.2	199	3.0	132	3.1	118
54	12.6	219	3.2	60	3.2	71
55	11.8	252	3.1	89	3.1	118
56	11.7	255	3.3	33	3.2	71
57	12.1	243	3.3	33	3.3	45
58	12.3	235	3.2	60	3.2	71
59	12.0	246	3.3	33	3.2	71
60	12.2	240	3.3	33	3.3	45
61	11.3	268	3.4	19	3.3	45
62	11.7	255	3.3	33	3.2	71
63	13.4	187	3.0	132	3.1	118
64	14.6	123	3.0	132	3.2	71
65	14.7	115	3.1	89	3.3	45
66	14.2	143	2.9	167	3.0	176
67	12.8	213	3.0	132	3.1	118
68	12.3	235	3.2	60	3.2	71
69	12.2	240	3.1	89	3.1	118
70	12.9	208	2.9	167	3.0	176
71	12.0	246	3.1	89	3.1	118
72	13.9	156	3.1	89	3.2	71
73	13.4	187	3.1	89	3.1	118
74	14.9	105	3.0	132	3.1	118
75	13.1	203	3.2	60	3.2	71
76	12.5	224	3.2	60	3.2	71
77	12.6	219	3.0	132	3.0	176
78	11.1	271	3.3	33	3.2	71
79	12.3	235	3.0	132	3.0	176
80	11.0	273	3.3	33	3.2	71
81	12.2	240	3.1	89	3.1	118
82	13.2	199	2.9	167	3.0	176
83	11.5	263	3.6	2	3.5	19
84	11.9	250	3.3	33	3.3	45
85	12.4	229	3.1	89	3.1	118
86	14.5	130	3.1	89	3.2	71
87	13.7	168	2.9	167	3.0	176
88	11.7	255	3.1	89	3.1	118
89	11.7	255	3.1	89	3.1	118
90	10.9	274	3.2	60	3.1	118
91	11.3	268	3.0	132	2.9	237
92	10.5	278	3.3	33	3.1	118
93	10.5	278	3.3	33	3.1	118
94	11.1	271	3.1	89	3.0	176
95	11.6	260	3.3	33	3.2	71
96	11.1	271	3.1	89	3.0	176
97	12.4	229	3.1	89	3.1	118
98	12.1	243	3.2	60	3.1	118
99	12.2	240	3.0	132	3.0	176
100	11.6	260	3.2	60	3.1	118

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
101	11.6	260	3.2	60	3.1	118
102	12.9	208	3.0	132	3.0	176
103	15.1	99	2.9	167	3.0	176
104	13.5	178	2.9	167	3.0	176
105	14.3	141	2.9	167	3.0	176
106	13.7	168	3.0	132	3.1	118
107	12.9	208	3.1	89	3.1	118
108	15.3	92	2.9	167	3.0	176
109	14.8	109	2.9	167	3.0	176
110	17.3	41	2.7	251	2.9	237
111	16.1	66	2.7	251	2.9	237
112	16.5	57	2.8	213	3.0	176
113	13.4	187	3.1	89	3.2	71
114	13.4	187	3.2	60	3.2	71
115	13.2	199	3.2	60	3.2	71
116	14.0	151	3.2	60	3.3	45
117	16.1	66	2.9	167	3.1	118
118	16.7	51	2.8	213	3.0	176
119	17.9	31	2.6	274	2.8	272
120	16.8	49	2.8	213	3.0	176
121	16.7	51	2.9	167	3.1	118
122	14.6	123	2.9	167	3.1	118
123	15.6	79	2.7	251	2.9	237
124	16.1	66	3.0	132	3.2	71
125	16.1	66	2.8	213	3.0	176
126	18.3	22	2.8	213	3.0	176
127	17.4	39	2.8	213	3.0	176
128	18.5	18	2.8	213	3.0	176
129	16.9	47	2.8	213	3.0	176
130	17.1	44	2.7	251	2.9	237
131	16.0	70	3.0	132	3.2	71
132	16.7	51	2.7	251	2.9	237
133	16.0	70	3.0	132	3.2	71
134	16.3	61	2.9	167	3.1	118
135	16.6	54	2.9	167	3.2	71
136	15.0	102	3.1	89	3.2	71
137	15.3	92	3.1	89	3.3	45
138	14.7	115	3.2	60	3.4	32
139	14.9	105	3.0	132	3.2	71
140	14.5	130	3.0	132	3.1	118
141	14.6	123	3.1	89	3.2	71
142	15.7	75	3.0	132	3.2	71
143	15.3	92	3.2	60	3.4	32
144	14.5	130	3.1	89	3.2	71
145	13.8	163	3.3	33	3.4	32
146	13.6	172	3.1	89	3.1	118
147	13.1	203	3.2	60	3.3	45
148	14.1	147	3.0	132	3.1	118
149	14.7	115	3.2	60	3.3	45
150	13.5	178	3.4	19	3.5	19

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
151	16.3	61	2.8	213	3.0	176
152	14.7	115	3.0	132	3.1	118
153	14.6	123	2.9	167	3.1	118
154	14.4	136	2.9	167	3.1	118
155	14.6	123	2.9	167	3.0	176
156	15.5	83	2.8	213	3.0	176
157	14.4	136	3.1	89	3.2	71
158	15.2	96	3.1	89	3.3	45
159	15.5	83	2.9	167	3.1	118
160	13.8	163	3.1	89	3.2	71
161	14.0	151	3.1	89	3.1	118
162	13.6	172	2.6	274	2.7	277
163	12.0	246	3.4	19	3.4	32
164	13.4	187	3.0	132	3.1	118
165	15.4	87	3.0	132	3.2	71
166	16.1	66	3.1	89	3.3	45
167	17.7	34	3.1	89	3.3	45
168	16.6	54	3.2	60	3.4	32
169	17.5	38	2.7	251	3.0	176
170	14.5	130	3.3	33	3.4	32
171	14.9	105	3.6	2	3.8	1
172	13.3	195	3.4	19	3.5	19
173	13.8	163	3.1	89	3.3	45
174	12.5	224	3.2	60	3.3	45
175	14.2	143	3.5	9	3.6	8
176	14.8	109	3.5	9	3.6	8
177	13.3	195	3.3	33	3.4	32
178	12.6	219	3.2	60	3.2	71
179	15.3	92	2.9	167	3.1	118
180	15.2	96	3.1	89	3.3	45
181	16.0	70	3.1	89	3.3	45
182	16.4	59	2.9	167	3.1	118
183	15.6	79	3.0	132	3.2	71
184	18.9	12	2.7	251	2.9	237
185	18.9	12	2.7	251	2.9	237
186	19.5	9	2.8	213	3.0	176
187	12.6	219	3.2	60	3.2	71
188	11.4	265	3.4	19	3.3	45
189	11.9	250	3.4	19	3.4	32
190	11.3	268	3.3	33	3.2	71
191	12.9	208	3.2	60	3.2	71
192	13.4	187	3.1	89	3.2	71
193	14.5	130	3.1	89	3.3	45
194	14.4	136	3.3	33	3.4	32
195	14.4	136	3.6	2	3.7	4
196	14.8	109	3.4	19	3.5	19
197	11.4	265	3.1	89	2.9	237
198	13.0	205	3.4	19	3.4	32
199	--	--	--	--	--	--
200	12.8	213	3.3	33	3.3	45

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine	
	%	rank	%	rank	%	rank
201	14.6	123	2.9	167	3.1	118
202	14.1	147	2.8	213	2.9	237
203	14.2	143	2.9	167	3.0	176
204	13.6	172	3.5	9	3.6	8
205	13.8	163	3.6	2	3.7	4
206	14.6	123	3.4	19	3.5	19
207	16.2	63	3.3	33	3.5	19
208	15.6	79	3.3	33	3.5	19
209	14.4	136	3.5	9	3.6	8
210	14.4	136	3.5	9	3.7	4
211	13.5	178	3.4	19	3.5	19
212	14.4	136	3.6	2	3.8	1
213	14.6	123	3.4	19	3.6	8
214	15.5	83	3.4	19	3.5	19
215	16.5	57	3.2	60	3.4	32
216	15.7	75	3.0	132	3.2	71
217	18.1	27	2.9	167	3.1	118
218	16.9	47	2.9	167	3.1	118
219	17.0	46	3.0	132	3.2	71
220	15.1	99	3.2	60	3.3	45
221	17.2	43	2.4	279	2.7	277
222	17.8	33	2.7	251	2.9	237
223	17.6	36	2.8	213	3.0	176
224	19.8	7	2.9	167	3.1	118
225	17.9	31	2.9	167	3.2	71
226	19.8	7	2.8	213	3.0	176
227	19.9	6	3.1	89	3.3	45
228	18.3	22	3.2	60	3.5	19
229	18.7	15	2.7	251	3.0	176
230	19.1	10	2.5	278	2.7	277
231	17.3	41	2.9	167	3.1	118
232	18.3	22	2.8	213	3.0	176
233	21.1	4	3.0	132	3.2	71
234	25.1	1	2.7	251	2.9	237
235	23.8	2	2.8	213	3.0	176
236	22.5	3	2.8	213	3.0	176
237	18.2	25	3.1	89	3.3	45
238	18.0	29	3.0	132	3.3	45
239	15.4	87	3.0	132	3.2	71
240	14.9	105	3.5	9	3.7	4
241	13.3	195	2.8	213	2.9	237
242	13.6	172	2.8	213	2.9	237
243	13.4	187	3.5	9	3.6	8
244	12.4	229	3.3	33	3.3	45
245	13.8	163	3.5	9	3.6	8
246	12.5	224	3.6	2	3.6	8
247	13.1	203	3.3	33	3.4	32
248	14.7	115	3.6	2	3.8	1
249	15.1	99	3.3	33	3.5	19
250	14.1	147	3.3	33	3.4	32

Table 22. Protein and lysine values for entries in the first high protein-high lysine observation nursery grown at Zagreb, Yugoslavia in 1975. Concluded.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine %	Adjusted lysine rank
251	13.4	187	3.4	19	3.5	19
252	14.0	151	3.5	9	3.6	8
253	13.4	187	3.5	9	3.6	8
254	13.8	163	3.4	19	3.5	19
255	15.7	75	3.0	132	3.2	71
256	15.9	72	3.0	132	3.2	71
257	16.5	57	2.8	213	3.0	176
258	13.6	172	3.2	60	3.3	45
259	14.7	115	3.0	132	3.2	71
260	13.2	199	3.1	89	3.2	71
261	18.7	15	2.8	213	3.0	176
262	17.4	39	2.8	213	3.0	176
263	15.4	87	2.8	213	3.0	176
264	17.1	44	2.8	213	3.0	176
265	19.1	10	2.8	213	3.0	176
266	18.1	27	2.9	167	3.1	118
267	18.5	18	2.7	251	2.9	237
268	18.7	15	2.7	251	2.9	237
269	20.5	5	2.6	274	2.8	272
270	17.6	36	2.7	251	2.9	237
271	16.7	51	2.9	167	3.1	118
272	18.3	22	2.8	213	3.0	176
273	17.6	36	2.7	251	2.9	237
274	18.6	17	2.7	251	2.9	237
275	18.0	29	2.8	213	3.0	176
276	18.4	20	2.8	213	3.0	176
277	18.2	25	2.8	213	3.0	176
278	16.3	61	2.8	213	3.0	176
279	13.9	156	2.7	251	2.9	237
280	13.4	187	2.8	213	2.9	237

Correlation Coefficients

	Lysine/protein	Adjusted lysine
Protein	-.55**	-.21**

** Significant at the .01 level.

Means of check varieties

Variety	Protein %	Lysine/protein %	Adjusted lysine %
Atlas 66	15.4	2.8	3.0
Bezostaya 1	13.9	2.8	2.9
CR8156	13.7	2.8	2.9
Lancota	13.4	2.8	2.9
Centurk	13.1	3.0	3.0
CI13449	12.0	3.5	3.5
Overall means	13.6	3.0	3.0
$LSD_{.05}$ of the means	1.3	0.1	0.1
Coefficient of variation (%)	6.3	3.4	3.1

Table 23. Means of protein, lysine/protein and adjusted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona.[1/]

Entry no.	N[2/]	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield[3/] q/ha	Yield[3/] rank
234	15	22.1	2.8	2.9	34.4	244
235	15	21.6	2.8	3.0	32.4	246
228	15	20.3	2.8	3.0	26.3	254
184	15	20.1	2.8	3.0	47.0	197
233	15	19.9	2.8	3.0	56.9	105
185	15	19.9	2.8	3.0	35.9	242
227	14	19.8	3.1	3.3	26.9	253
236	15	19.8	2.9	3.0	41.5	226
229	15	19.6	2.8	3.0	34.4	243
221	14	19.5	2.8	3.0	31.0	251
224	14	19.5	3.0	3.2	33.2	245
226	14	19.5	2.8	3.0	29.6	250
169	16	19.3	2.8	3.0	41.0	229
168	16	19.2	3.0	3.1	44.6	211
182	15	19.1	2.9	3.1	53.1	139
222	15	19.1	2.8	3.0	22.5	256
181	12	19.1	2.9	3.1	31.5	248
230	14	19.1	2.8	3.0	26.3	255
217	16	19.0	2.9	3.1	38.1	240
261	15	18.9	2.7	2.9	43.9	212
232	15	18.9	2.8	3.0	43.2	219
167	15	18.6	3.0	3.2	43.7	214
225	14	18.6	3.0	3.2	28.7	251
231	14	18.5	2.9	3.1	41.0	228
265	14	18.5	2.7	2.9	49.7	178
223	12	18.4	3.0	3.2	41.2	222
186	15	18.3	2.9	3.1	31.6	247
218	15	18.2	2.9	3.1	38.0	241
183	15	18.1	3.0	3.2	50.3	169
166	15	18.1	2.9	3.1	57.3	101
276	13	18.0	2.7	2.9	43.8	213
267	13	17.8	2.7	2.9	48.0	192
237	13	17.8	3.0	3.2	40.9	231
238	14	17.7	3.1	3.3	28.1	252
269	14	17.7	2.8	3.0	46.5	202
262	15	17.6	2.8	3.0	38.8	238
219	15	17.6	3.0	3.2	43.1	220
274	12	17.6	2.7	2.9	55.9	114
266	13	17.5	2.7	2.9	42.6	223
126	16	17.4	2.9	3.1	57.9	90
119	15	17.3	2.8	3.0	45.2	209
128	16	17.3	2.9	3.0	76.9	5
180	16	17.3	3.0	3.2	42.8	222
112	15	17.2	2.8	3.0	50.9	163
271	13	17.1	2.8	3.0	47.0	198
45	16	17.1	2.9	3.1	53.8	133
272	13	17.1	2.8	3.0	55.4	119
220	16	17.1	3.0	3.2	40.7	232
275	13	17.0	2.7	2.9	58.2	87
268	14	17.0	2.8	3.0	53.5	136

[1/] Data from Passo Fundo, Brazil; Tel Amara, Lebanon, and Lincoln, Nebraska, USA are not included in this analysis.
[2/] N equals the number of observations or location values comprising each mean.
[3/] Yields based on a four replication nursery.

Table 23. Means of protein, lysine/protein and adjutted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona. Continued.

Entry no.	N	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield q/ha	Yield rank
27	16	17.0	2.8	3.0	49.7	177
118	16	17.0	2.9	3.1	58.5	84
264	13	17.0	2.7	2.9	52.0	155
270	13	17.0	2.8	2.9	52.5	147
273	12	16.9	2.7	2.9	49.6	179
48	16	16.9	2.9	3.1	48.2	191
38	15	16.9	2.8	3.0	49.9	173
277	13	16.9	2.8	3.0	57.5	98
257	15	16.8	3.0	3.2	53.2	138
127	16	16.7	2.8	3.0	71.8	11
110	16	16.6	2.8	3.0	39.5	237
39	15	16.6	2.8	3.0	57.4	110
40	15	16.6	2.8	2.9	55.2	120
47	16	16.6	3.0	3.1	43.3	216
171	16	16.6	3.3	3.4	61.2	57
255	15	16.6	3.0	3.1	43.2	217
124	16	16.5	2.9	3.1	43.7	215
130	16	16.5	2.9	3.0	49.5	181
196	16	16.5	3.2	3.3	47.9	193
52	16	16.5	2.9	3.1	45.1	210
131	16	16.4	3.0	3.2	50.1	172
49	16	16.4	3.0	3.1	54.6	125
195	15	16.3	3.2	3.3	46.8	200
111	16	16.3	2.8	3.0	49.6	180
44	16	16.3	2.9	3.0	50.6	165
129	15	16.3	2.9	3.0	47.1	196
165	16	16.3	2.9	3.1	49.4	182
117	16	16.2	2.9	3.0	49.3	183
263	12	16.2	2.8	3.0	57.9	90
105	15	16.2	2.8	2.9	51.0	169
46	15	16.2	2.9	3.1	43.0	221
125	15	16.2	2.8	3.0	54.8	123
120	15	16.2	3.0	3.1	57.6	94
256	16	16.2	3.0	3.2	47.9	194
193	16	16.1	3.1	3.2	58.2	88
29	16	16.1	2.9	3.0	41.7	225
51	16	16.1	3.0	3.1	51.2	161
239	14	16.1	3.2	3.3	63.1	44
53	16	16.0	2.9	3.0	49.8	175
12	16	16.0	3.0	3.1	54.4	129
86	16	16.0	2.9	3.0	39.5	236
172	15	15.9	3.2	3.3	46.3	203
31	15	15.9	2.9	3.0	38.5	239
194	16	15.9	3.2	3.4	72.1	10
135	16	15.9	3.0	3.1	57.5	99
108	16	15.9	2.9	3.1	49.9	174
30	16	15.9	2.9	3.1	48.4	190
197	13	15.9	3.2	3.3	48.9	187
154	16	15.9	2.8	3.0	39.6	235
132	16	15.8	3.1	3.2	52.5	148

Table 23. Means of protein, lysine/protein and adjusted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona. Continued.

Entry no.	N	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield q/ha	Yield rank
87	16	15.8	2.9	3.0	56.3	111
206	15	15.8	3.2	3.3	48.0	192
74	14	15.8	3.0	3.1	50.4	166
28	16	15.8	3.0	3.1	40.6	233
19	16	15.8	2.9	3.0	50.4	167
259	14	15.7	3.1	3.3	60.7	59
173	16	15.7	3.2	3.3	48.8	189
103	15	15.7	2.9	3.0	50.2	170
240	15	15.7	3.2	3.3	43.2	217
109	16	15.7	2.9	3.1	69.0	16
77	16	15.7	3.1	3.2	52.3	151
187	14	15.7	3.1	3.2	60.0	66
207	16	15.6	3.2	3.3	57.8	92
79	16	15.6	2.9	3.0	51.5	158
75	16	15.6	3.0	3.2	47.0	199
133	14	15.6	3.1	3.2	49.1	186
179	15	15.5	3.1	3.2	76.4	7
106	16	15.5	2.9	3.0	45.7	206
159	16	15.5	3.0	3.1	59.5	71
249	16	15.5	3.3	3.4	70.1	13
205	16	15.5	3.3	3.4	65.4	28
134	15	15.5	3.1	3.2	65.5	27
113	16	15.5	3.1	3.2	54.4	128
192	16	15.5	3.0	3.1	50.2	170
252	14	15.5	3.2	3.4	57.5	97
248	16	15.4	3.2	3.3	63.7	42
104	16	15.4	2.9	3.0	56.6	80
102	16	15.4	2.9	3.0	56.3	110
250	16	15.4	3.2	3.3	65.3	29
76	16	15.4	3.1	3.2	52.1	154
164	15	15.3	3.0	3.1	64.3	36
24	15	15.3	2.9	3.0	52.4	150
216	15	15.3	3.1	3.2	57.6	95
25	16	15.3	3.1	3.3	52.7	145
116	16	15.3	3.1	3.2	50.4	167
114	16	15.2	3.1	3.3	60.1	62
115	15	15.2	3.0	3.2	55.8	116
208	16	15.1	3.3	3.4	52.7	144
251	15	15.1	3.3	3.4	58.3	86
245	16	15.1	3.3	3.4	70.3	13
191	16	15.1	3.1	3.2	57.7	93
247	16	15.1	3.3	3.4	70.9	12
215	15	15.1	3.3	3.0	69.6	15
107	16	15.1	2.9	3.0	61.8	53
20	16	15.0	2.9	3.0	46.7	201
246	14	15.0	3.3	3.4	57.1	103
18	16	15.0	3.0	3.1	63.9	40
151	16	15.0	3.0	3.1	49.2	185
170	15	15.0	3.2	3.3	54.9	122
199	14	15.0	3.3	3.4	54.3	130

Table 23. Means of protein, lysine/protein and adjusted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona. Continued.

Entry no.	N	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield q/ha	Yield rank
17	16	15.0	3.0	3.1	56.5	108
204	15	14.9	3.3	3.4	65.5	28
157	15	14.9	3.0	3.1	69.7	14
136	16	14.9	3.1	3.2	40.9	230
139	15	14.9	3.0	3.1	58.6	82
97	16	14.9	3.0	3.1	49.2	184
26	15	14.8	2.8	3.0	46.2	204
13	16	14.8	3.0	3.1	55.7	118
158	15	14.8	3.1	3.2	53.0	140
140	16	14.8	3.1	3.2	46.0	205
155	16	14.8	2.9	3.0	51.8	157
210	16	14.8	3.3	3.4	73.1	9
189	16	14.8	3.2	3.3	58.6	81
64	16	14.8	3.1	3.2	64.9	31
137	15	14.7	3.2	3.2	67.4	20
146	16	14.7	3.1	3.2	54.6	124
99	16	14.7	3.0	3.0	59.8	69
258	15	14.7	3.2	3.3	54.3	131
14	16	14.7	3.0	3.1	54.5	126
70	16	14.7	2.9	3.0	51.4	160
72	16	14.7	3.1	3.2	63.1	45
148	16	14.7	3.1	3.2	45.3	208
153	16	14.6	3.0	3.1	59.1	75
149	16	14.6	3.0	3.2	60.4	61
142	16	14.6	3.1	3.2	56.0	113
65	15	14.5	3.2	3.3	65.7	26
50	16	14.5	3.0	3.1	51.4	159
174	15	14.5	3.3	3.3	58.9	77
160	15	14.5	3.1	3.2	53.0	140
88	16	14.5	3.0	3.0	58.9	78
214	14	14.5	3.4	3.5	61.2	56
156	16	14.5	2.9	3.0	48.8	189
8	15	14.4	3.0	3.1	59.1	76
254	14	14.4	3.4	3.5	79.4	2
143	16	14.4	3.1	3.2	58.5	83
21	16	14.4	2.9	3.0	59.2	74
138	16	14.4	3.2	3.2	63.9	41
144	15	14.4	3.2	3.2	68.1	18
147	16	14.4	3.1	3.2	65.1	30
78	16	14.3	3.2	3.2	51.9	156
260	14	14.3	3.1	3.2	53.6	135
95	16	14.3	3.1	3.2	66.3	23
198	14	14.3	3.3	3.4	60.4	60
7	16	14.3	3.1	3.2	52.3	153
94	16	14.3	3.1	3.2	58.1	89
200	15	14.3	3.3	3.4	64.4	7
33	14	14.3	3.1	3.2	56.2	112
209	16	14.3	3.4	3.5	59.5	72
32	16	14.3	3.1	3.2	62.1	49
145	16	14.3	3.3	3.3	62.8	46

Table 23. Means of protein, lysine/protein and adjusted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations and the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona. Continued.

Entry no.	NN	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield q/ha	Yield rank
150	16	14.3	3.2	3.3	56.7	106
101	14	14.3	3.1	3.1	64.0	39
85	15	14.2	3.1	3.2	67.6	19
16	16	14.2	3.0	3.1	62.8	47
188	16	14.2	3.2	3.3	64.6	33
152	16	14.2	3.1	3.2	61.9	51
84	16	14.2	3.2	3.2	52.7	143
35	16	14.2	3.1	3.2	52.5	146
22	16	14.2	3.0	3.1	56.5	107
178	16	14.1	3.2	3.2	63.0	46
63	15	14.1	3.2	3.2	54.5	126
212	16	14.1	3.4	3.5	62.1	48
98	15	14.1	3.1	3.1	61.8	52
36	16	14.1	3.1	3.2	52.3	151
141	16	14.0	3.1	3.2	61.7	54
175	14	14.0	3.4	3.4	59.6	70
100	15	14.0	3.0	3.1	57.5	96
34	16	14.0	3.1	3.2	45.7	207
176	13	14.0	3.5	3.5	53.6	134
91	14	14.0	3.0	3.0	61.6	55
15	16	13.9	3.0	3.1	58.9	79
69	16	13.9	3.1	3.2	58.3	85
96	16	13.9	3.0	3.0	62.0	50
213	15	13.9	3.4	3.4	76.9	6
68	16	13.8	3.3	3.3	66.3	23
55	16	13.8	3.2	3.2	57.2	102
54	16	13.8	3.1	3.2	65.7	25
253	13	13.8	3.5	3.5	87.3	1
5	16	13.8	3.1	3.1	57.0	104
37	15	13.8	3.1	3.2	47.2	195
23	16	13.8	3.1	3.1	64.5	34
177	15	13.8	3.4	3.4	60.1	63
92	16	13.8	3.1	3.1	64.1	37
190	14	13.7	3.2	3.3	64.1	37
80	15	13.7	3.3	3.3	53.3	137
66	16	13.6	3.2	3.2	64.9	32
10	16	13.6	3.2	3.2	56.4	109
67	14	13.6	3.1	3.1	68.1	17
89	14	13.6	3.0	3.0	66.5	22
244	15	13.5	3.4	3.4	42.6	224
6	15	13.5	3.2	3.2	60.3	62
73	16	13.5	3.2	3.2	60.0	64
4	16	13.5	3.2	3.2	67.3	21
9	16	13.4	3.1	3.1	55.1	121
93	16	13.4	3.2	3.2	59.8	68
211	15	13.4	3.4	3.4	77.1	4
71	16	13.4	3.1	3.1	63.6	43
60	15	13.3	3.2	3.3	55.9	115
90	15	13.3	3.0	3.1	49.8	176
57	16	13.3	3.2	3.2	50.9	164

Table 23. Means of protein, lysine/protein and adjusted lysine/protein for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975 with yield data and ranks from Yuma, Arizona. Concluded.

Entry no.	N	Protein %	Lysine/protein %	Adjusted lysine/protein %	Yield q/ha	Yield rank
61	15	13.3	3.3	3.3	79.0	3
11	16	13.3	3.2	3.2	76.0	8
62	15	13.1	3.2	3.3	52.8	142
56	16	13.1	3.3	3.3	54.1	132
58	16	13.1	3.3	3.3	60.0	67
59	14	12.9	3.3	3.3	55.8	117
Check varieties:[4/]						
Atlas 66	59	16.9	2.8	3.0	42.8	
Bezostaya 1	59	15.1	2.8	3.0	58.1	
Centurk	62	14.1	3.0	3.1	55.8	
CI13449	59	13.2	3.3	3.3	68.2	
CR8156	54	13.9	3.0	3.0	42.8	
Lancota	64	15.1	2.8	2.9	60.6	
Statistics from analyses of variance based on 280 entries:[5/]						
Grand Mean		15.6	3.0	3.1		
L.S.D.$_{.05}$		1.0	0.1	0.1		
L.S.D.$_{.01}$		1.3	0.1	0.1		
Coefficient of variation (%)		8.9	4.9	4.3		

[4/] Yield data means are based on 16 observations for each variety from Yuma, Arizona.

[5/] Statistical analyses only approximately correct due to missing data.

Table 24. Location means and ranks of protein, lysine/protein, and adjusted lysine/protein with statistics from combined analyses for 256 experimental lines and 6 check varieties grown at 16 or less locations in the first high protein-high lysine observation nursery in 1975.

Location	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
Argentina	17.6	4	2.88	13	3.08	12
Chile	15.4	8	3.37	1	3.52	1
Egypt	15.3	9	3.01	10	3.13	9
Hungary	16.4	6	2.95	12	3.13	10
Iran	12.8	15	3.15	3	3.14	6
Jordan	13.8	12	3.04	8	3.10	11
Korea	18.4	3	2.86	14	3.07	13
Nepal	13.4	13	3.12	4	3.17	5
Netherlands	13.2	14	3.08	5	3.07	14
Pakistan	18.9	2	2.79	15	2.99	15
South Africa	16.0	7	2.99	11	3.14	7
Turkey, Ankara	19.4	1	2.79	16	2.99	16
Turkey, Eskisehir	14.9	10	3.06	6	3.19	3
USA, Arizona	12.4	16	3.24	2	3.19	4
USA, Oklahoma	17.0	5	3.05	7	3.24	2
Yugoslavia	14.6	11	3.04	9	3.14	8
Statistics:[1/]						
Grand Mean	15.6		3.03		3.14	
L.S.D.$_{.05}$	1.03		0.11		0.10	
Coefficient of variation (%)	8.87		4.87		4.29	

[1/] Statistics from analyses of variance are approximate since there were missing data at some locations.

Table 25. Means of protein, lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
234	21.4	1	2.8	226	3.0	192
235	20.0	2	2.8	226	3.0	192
185	19.6	3	2.8	226	3.0	192
184	19.2	4	2.7	262	3.0	192
233	19.2	5	2.8	226	3.0	192
227	18.9	6	3.1	69	3.3	34
168	18.6	7	2.9	170	3.1	129
228	18.6	8	2.9	170	3.1	129
181	18.6	9	3.0	116	3.2	66
167	18.4	10	3.0	116	3.2	66
186	18.4	11	3.0	116	3.3	34
265	18.4	12	2.7	262	2.9	256
226	18.2	13	2.9	170	3.1	129
261	18.2	14	2.7	262	2.9	256
224	18.2	15	3.0	116	3.2	66
236	18.1	16	3.0	116	3.2	66
223	17.9	17	3.0	116	3.2	66
221	17.9	18	2.9	170	3.1	129
217	17.8	19	2.9	170	3.1	129
182	17.8	20	2.9	170	3.2	66
229	17.7	21	2.9	170	3.1	129
225	17.6	22	3.1	69	3.3	34
222	17.6	23	2.7	262	3.0	192
267	17.5	24	2.7	262	2.9	256
230	17.5	25	2.8	226	3.0	192
232	17.5	26	2.8	226	3.0	192
276	17.5	27	2.7	262	2.9	256
27	17.5	28	2.7	262	2.9	256
218	17.3	29	2.9	170	3.1	129
266	17.3	30	2.6	278	2.8	279
183	17.2	31	3.1	69	3.3	34
269	17.1	32	2.8	226	2.9	256
169	17.0	33	2.8	226	3.0	192
231	17.0	34	2.9	170	3.1	129
166	16.9	35	2.8	226	3.0	192
238	16.9	36	3.1	69	3.2	66
274	16.8	37	2.7	262	2.9	256
257	16.7	38	3.0	116	3.2	66
272	16.6	39	2.8	226	3.0	192
219	16.4	40	3.0	116	3.2	66
273	16.4	41	2.7	262	2.9	256
38	16.4	42	2.7	262	2.9	256
171	16.4	43	2.2	280	3.4	15
187	16.4	44	3.1	69	3.3	34
268	16.4	45	2.9	170	3.1	129
31	16.4	46	2.8	226	3.0	192
39	16.3	47	2.7	262	2.9	256
28	16.3	48	2.8	226	3.0	192
128	16.3	49	2.8	226	3.0	192
262	16.3	50	2.8	226	3.0	192

Table 25. Means of protein, lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
118	16.3	51	3.0	116	3.2	66
256	16.2	52	2.9	170	3.1	129
52	16.2	53	2.8	226	3.0	192
237	16.2	54	3.1	69	3.3	34
51	16.1	55	2.9	170	3.1	129
254	16.1	56	3.3	13	3.5	3
117	16.1	57	2.9	170	3.1	129
165	16.1	58	2.9	170	3.1	129
29	16.0	59	2.8	226	3.0	192
270	16.0	60	2.6	278	2.8	279
112	16.0	61	2.8	226	3.0	192
48	16.0	62	2.8	226	3.0	192
201	16.0	63	2.8	226	3.0	192
220	16.0	64	3.0	116	3.2	66
40	15.9	65	2.7	262	2.9	256
131	15.9	66	3.0	116	3.1	129
41	15.9	67	2.7	262	2.9	256
271	15.9	68	2.8	226	3.0	192
110	15.9	69	2.7	262	2.9	256
126	15.8	70	2.8	226	3.0	192
49	15.8	71	3.0	116	3.2	66
275	15.8	72	2.8	226	3.0	192
278	15.8	73	2.9	170	3.0	192
277	15.8	74	2.8	226	3.0	192
264	15.7	75	2.8	226	3.0	192
255	15.7	76	2.9	170	3.1	129
164	15.7	77	2.9	170	3.1	129
24	15.7	78	2.8	226	3.0	192
162	15.6	79	2.7	262	2.9	256
103	15.6	80	2.8	226	3.0	192
179	15.6	81	3.1	69	3.3	34
25	15.6	82	3.0	116	3.2	66
19	15.6	83	2.9	170	3.1	129
196	15.6	84	3.3	13	3.4	15
47	15.5	85	2.9	170	3.0	192
172	15.5	86	3.2	35	3.3	34
116	15.5	87	3.0	116	3.2	66
119	15.5	88	2.9	170	3.0	192
193	15.5	89	3.1	69	3.2	66
76	15.5	90	3.0	116	3.1	129
154	15.5	91	2.9	170	3.0	192
130	15.5	92	2.9	170	3.1	129
30	15.5	93	2.8	226	3.0	192
263	15.5	94	2.8	226	3.0	192
45	15.5	95	2.9	170	3.1	129
75	15.5	96	3.0	116	3.2	66
180	15.5	97	3.1	69	3.3	34
127	15.4	98	2.7	262	2.9	256
46	15.4	99	2.9	170	3.1	129
105	15.4	100	2.9	170	3.0	192

Table 25. Means of protein, lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975. Continued.

Entry	Protein		Lysine/protein		Adjusted lysine/protein	
no.	%	rank	%	rank	%	rank
173	15.4	101	3.2	35	3.3	34
74	15.3	102	3.0	116	3.2	66
2	15.3	103	2.9	170	3.0	192
79	15.3	104	2.9	170	3.0	192
129	15.3	105	2.9	170	3.0	192
253	15.2	106	3.4	4	3.6	2
8	15.2	107	2.9	170	3.1	129
53	15.2	108	2.9	170	3.0	192
240	15.2	109	3.1	69	3.2	66
111	15.2	110	2.8	226	2.9	256
151	15.2	111	3.0	116	3.1	129
170	15.2	112	3.1	69	3.2	66
158	15.2	113	3.0	116	3.1	129
195	15.2	114	3.2	35	3.4	15
159	15.1	115	2.9	170	3.0	192
194	15.1	116	3.2	35	3.4	15
12	15.1	117	2.9	170	3.1	129
44	15.1	118	2.9	170	3.0	192
191	15.1	119	3.0	116	3.2	66
208	15.0	120	3.2	35	3.4	15
137	15.0	121	3.1	69	3.2	66
192	15.0	122	3.1	69	3.2	66
210	15.0	123	3.3	13	3.5	3
124	15.0	124	3.0	116	3.1	129
197	15.0	125	3.3	13	3.4	15
205	15.0	126	3.2	35	3.3	34
78	15.0	127	3.1	69	3.2	66
113	15.0	128	3.0	116	3.2	66
207	15.0	129	3.2	35	3.4	15
252	15.0	130	3.3	13	3.5	3
82	14.9	131	2.8	226	2.9	256
108	14.9	132	2.8	226	2.9	256
157	14.9	133	3.0	116	3.2	66
160	14.9	134	2.9	170	3.1	129
26	14.9	135	2.8	226	2.9	256
104	14.9	136	3.0	116	3.1	129
106	14.9	137	2.9	170	3.0	192
115	14.9	138	3.0	116	3.2	66
145	14.8	139	3.3	13	3.4	15
125	14.8	140	2.8	226	2.9	256
209	14.8	141	3.3	13	3.5	3
189	14.8	142	3.3	13	3.4	15
212	14.8	143	3.3	13	3.4	15
259	14.8	144	3.2	35	3.3	34
70	14.8	145	2.8	226	2.9	256
102	14.8	146	3.0	116	3.1	129
99	14.7	147	2.9	170	3.0	192
114	14.7	148	3.2	35	3.3	34
133	14.7	149	3.1	69	3.2	66
132	14.7	150	3.1	69	3.3	34

Table 25. Means of protein. lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975. Continued.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
204	14.7	151	3.4	4	3.5	3
206	14.7	152	3.1	69	3.2	66
7	14.6	153	3.1	69	3.3	34
20	14.6	154	2.9	170	3.0	192
251	14.6	155	3.4	4	3.5	3
77	14.6	156	3.1	69	3.2	66
248	14.6	157	3.2	35	3.3	34
109	14.6	158	2.9	170	3.0	192
120	14.6	159	3.0	116	3.2	66
121	14.6	160	3.0	116	3.1	129
188	14.6	161	3.2	35	3.3	34
242	14.6	162	2.8	226	2.9	256
214	14.5	163	3.4	4	3.5	3
50	14.5	164	2.9	170	3.0	192
87	14.5	165	3.0	116	3.1	129
97	14.5	166	3.0	116	3.1	129
239	14.5	167	3.2	35	3.4	15
139	14.5	168	2.8	226	2.9	256
155	14.5	169	2.9	170	3.1	129
260	14.5	170	3.0	116	3.1	129
250	14.4	171	3.2	35	3.3	34
17	14.4	172	2.9	170	3.1	129
14	14.4	173	2.9	170	3.0	192
152	14.4	174	3.1	69	3.2	66
3	14.3	175	3.1	69	3.2	66
98	14.3	176	3.0	116	3.1	129
245	14.3	177	3.3	13	3.4	15
246	14.3	178	3.3	13	3.4	15
13	14.3	179	2.9	170	3.1	129
1	14.3	180	3.0	116	3.1	129
138	14.3	181	3.1	69	3.2	66
247	14.3	182	3.2	35	3.3	34
18	14.2	183	3.0	116	3.1	129
86	14.2	184	2.9	170	3.0	192
10	14.2	185	3.0	116	3.2	66
32	14.2	186	3.0	116	3.1	129
249	14.2	187	3.3	13	3.5	3
21	14.2	188	2.9	170	3.0	192
136	14.2	189	3.2	35	3.3	34
144	14.2	190	3.1	69	3.2	66
146	14.2	191	3.0	116	3.1	129
174	14.2	192	3.3	13	3.4	15
81	14.1	193	3.0	116	3.1	129
150	14.1	194	3.1	69	3.2	66
215	14.1	195	3.3	13	3.4	15
176	14.1	196	3.6	1	3.7	1
107	14.1	197	2.9	170	3.0	192
135	14.1	198	3.0	116	3.1	129
161	14.1	199	2.9	170	3.1	129
96	14.1	200	2.9	170	3.0	192

Table 25. Means of protein, lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975. Continued.

Entry no.	Protein %	Protein rank	Lysine/protein %	Lysine/protein rank	Adjusted lysine/protein %	Adjusted lysine/protein rank
142	14.1	201	3.0	116	3.1	129
156	14.0	202	2.9	170	3.0	192
91	14.0	203	3.0	116	3.0	192
4	14.0	204	3.1	69	3.2	66
175	14.0	205	3.4	4	3.4	15
36	14.0	206	3.0	116	3.1	129
72	14.0	207	3.1	69	3.2	66
213	13.9	208	3.4	4	3.5	3
140	13.9	209	3.1	69	3.1	129
153	13.9	210	3.1	69	3.2	66
199	13.9	211	3.3	13	3.4	15
5	13.9	212	2.9	170	3.0	192
190	13.9	213	3.3	13	3.3	34
280	13.9	214	2.9	170	3.0	192
35	13.9	215	3.0	116	3.1	129
34	13.8	216	3.1	69	3.1	129
16	13.8	217	3.0	116	3.1	129
149	13.8	218	3.0	116	3.1	129
258	13.8	219	3.1	69	3.2	66
177	13.8	220	3.5	2	3.5	3
88	13.8	221	3.0	116	3.1	129
198	13.8	222	3.2	35	3.3	34
63	13.7	223	3.1	69	3.2	66
64	13.7	224	3.1	69	3.2	66
73	13.7	225	3.1	69	3.2	66
9	13.7	226	3.0	116	3.1	129
80	13.7	227	3.3	13	3.4	15
143	13.7	228	3.2	35	3.2	66
147	13.7	229	3.1	69	3.2	66
84	13.7	230	3.2	35	3.2	66
94	13.7	231	3.1	69	3.2	66
178	13.7	232	3.2	35	3.3	34
33	13.6	233	3.1	69	3.2	66
148	13.6	234	3.2	35	3.2	66
22	13.6	235	3.0	116	3.1	129
6	13.6	236	3.2	35	3.2	66
211	13.6	237	3.4	4	3.5	3
65	13.5	238	3.2	35	3.2	66
43	13.5	239	2.9	170	3.0	192
66	13.5	240	3.2	35	3.2	66
23	13.5	241	3.1	69	3.1	129
69	13.5	242	3.1	69	3.1	129
85	13.4	243	3.2	35	3.2	66
200	13.4	244	3.3	13	3.3	34
100	13.4	245	2.9	170	3.0	192
92	13.4	246	3.1	69	3.1	129
203	13.4	247	2.9	170	3.0	192
83	13.4	248	3.4	4	3.4	15
95	13.4	249	3.1	69	3.1	129
141	13.3	250	3.1	69	3.2	66

Table 25. Means of protein, lysine/protein, and adjusted lysine/protein ranked by protein value for the first high protein-high lysine observation nursery grown at Martonvasar, Hungary; Eskisehir, Turkey and Amman, Jordan in 1975. Concluded.

Entry no.	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
134	13.3	251	3.2	35	3.2	66
67	13.3	252	3.0	116	3.0	192
89	13.3	253	3.0	116	3.0	192
62	13.2	254	3.2	35	3.3	34
216	13.2	255	3.2	35	3.3	34
37	13.2	256	3.1	69	3.2	66
90	13.2	257	3.0	116	3.0	192
60	13.2	258	3.2	35	3.3	34
54	13.1	259	3.1	69	3.1	129
55	13.1	260	3.2	35	3.3	34
68	13.1	261	3.2	35	3.3	34
15	13.1	262	3.1	69	3.1	129
93	13.1	263	3.2	35	3.2	66
241	13.1	264	3.0	116	3.1	129
163	13.0	265	3.3	13	3.3	34
244	13.0	266	3.5	2	3.5	3
11	13.0	267	3.1	69	3.1	129
123	13.0	268	2.9	170	3.0	192
202	12.9	269	2.9	170	3.0	192
71	12.9	270	3.1	69	3.2	66
101	12.9	271	3.2	35	3.2	66
59	12.6	272	3.3	13	3.3	34
61	12.5	273	3.2	35	3.2	66
42	12.4	274	3.0	116	3.0	192
57	12.4	275	3.2	35	3.2	66
122	12.4	276	3.1	69	3.1	129
56	12.3	277	3.3	13	3.2	66
279	12.2	278	3.0	116	3.0	192
243	12.2	279	3.3	13	3.2	66
58	12.1	280	3.4	4	3.3	34
Check variety means:						
Atlas 66	15.6		2.9		3.0	
Bezostaya 1	13.5		2.9		3.0	
Centurk	13.9		3.0		3.1	
CI13449	13.2		3.3		3.3	
CR8156	12.5		3.0		3.0	
Statistics:						
Grand Mean	15.0		3.0		3.1	
L.S.D.$_{.05}$	1.9		0.2		0.2	
Coefficient of variation (%)	7.9		4.7		4.3	
Location means:						
Hungary	16.4		3.0		3.1	
Jordan	13.8		3.0		3.1	
Turkey	14.9		3.1		3.2	

Table 26. Means and ranks of protein, lysine/protein and adjusted lysine/protein for 133 experimental lines and 5 check varieties grown at 16 sites in the first high protein-high lysine observation nursery in 1975 with yield data from Yuma, Arizona[1/].

Entry no.	$\bar{x}$ Protein %	rank[3/]	$\bar{x}$ Lysine/protein %	rank[3/]	$\bar{x}$ Adjusted lysine/protein %	rank[3/]	$\bar{x}$ Yield[2/] q/ha	rank
169	19.3	1	2.83	135	3.04	115	40.95	130
168	19.2	2	2.95	97	3.13	76	44.62	125
217	19.0	3	2.87	127	3.07	99	38.07	138
126	17.4	4	2.89	117	3.07	97	57.89	58
128	17.3	5	2.86	132	3.03	122	76.89	1
180	17.3	6	2.99	80	3.17	65	42.75	128
45	17.1	7	2.89	116	3.07	98	53.76	81
220	17.1	8	2.98	86	3.17	66	40.67	132
27	17.0	9	2.79	139	2.97	135	49.73	105
118	17.0	10	2.87	125	3.05	107	58.49	54
48	16.9	11	2.92	104	3.09	92	48.17	115
127	16.7	13	2.78	141	2.96	138	71.87	5
110	16.6	14	2.80	137	2.98	133	39.49	137
47	16.6	15	2.95	98	3.12	81	43.31	127
171	16.6	16	3.27	8	3.37	9	61.16	37
124	16.5	17	2.91	110	3.07	101	43.70	126
130	16.5	18	2.86	131	3.02	129	49.46	107
196	16.5	19	3.18	25	3.33	14	47.94	116
52	16.5	20	2.88	120	3.06	103	45.12	124
131	16.4	21	3.01	79	3.16	69	50.10	102
49	16.4	22	2.97	91	3.13	75	54.58	76
111	16.3	23	2.84	134	3.02	131	49.57	106
44	16.3	24	2.89	119	3.04	112	50.62	98
165	16.3	25	2.89	118	3.05	106	49.44	108
117	16.2	26	2.88	123	3.03	125	49.33	109
256	16.2	27	3.02	77	3.20	45	47.91	117
193	16.1	28	3.07	64	3.22	31	58.16	56
29	16.1	29	2.88	122	3.04	110	41.72	129
51	16.1	30	2.95	100	3.11	85	51.21	96
53	16.0	31	2.90	115	3.04	111	49.78	104
12	16.0	32	2.95	99	3.11	88	54.35	79
86	16.0	33	2.90	112	3.03	121	39.51	136
194	15.9	34	3.20	20	3.35	10	72.14	4
135	15.9	35	2.98	87	3.08	94	57.49	62
108	15.9	36	2.90	114	3.06	104	49.86	103
30	15.9	37	2.91	111	3.07	100	48.44	114
154	15.9	38	2.81	136	2.97	134	39.62	135
132	15.8	39	3.09	55	3.22	32	52.47	86
87	15.8	40	2.85	133	2.99	132	56.26	71
28	15.8	41	2.96	93	3.11	87	40.62	133
19	15.8	42	2.86	128	3.02	128	50.41	99
173	15.7	43	3.20	21	3.32	16	48.84	112
109	15.7	44	2.92	107	3.05	108	69.03	10
77	15.7	45	3.05	70	3.17	64	52.34	87
207	15.6	46	3.17	30	3.32	17	57.79	60
79	15.6	47	2.94	102	3.04	113	51.49	93
75	15.6	48	3.04	72	3.18	58	47.02	118
106	15.5	49	2.88	121	3.02	130	45.68	121
159	15.5	50	2.98	85	3.12	82	59.52	45
249	15.5	51	3.31	5	3.44	3	70.10	9

1/ Data from Passo Fundo, Brazil; Tel Amara, Lebanon; and Lincoln, Nebraska, U.S.A. are not included in this analysis.

2/ Yield data are from a replicated nursery at Yuma, Arizona.

3/ Ranks for protein and lysine were made on 142 observations and for yield were made on 138. Mean values of check varieties were used for protein, lysine and their corresponding ranks.

Table 26. Means and ranks of protein, lysine/protein and adjusted lysine/protein for 133 experimental lines and 5 check varieties grown at 16 sites in the first high protein-high lysine observation nursery in 1975 with yield data from Yuma, Arizona[1/]. Continued.

Entry no.	$\bar{x}$ Protein %	rank	$\bar{x}$ Lysine/protein %	rank	$\bar{x}$ Adjusted lysine/protein %	rank	$\bar{x}$ Yield[2/] q/ha	rank
205	15.5	52	3.27	11	3.41	6	65.37	15
113	15.5	53	3.06	67	3.19	48	54.37	78
192	15.5	54	2.99	81	3.13	77	50.18	101
248	15.4	55	3.19	22	3.33	12	63.68	25
104	15.4	56	2.92	105	3.03	120	56.60	51
102	15.4	57	2.93	103	3.04	114	56.32	70
250	15.4	58	3.18	24	3.32	18	65.29	16
76	15.4	59	3.09	59	3.19	50	52.07	90
25	15.3	61	3.12	42	3.26	23	52.66	84
116	15.3	62	3.05	69	3.17	59	50.41	99
114	15.2	64	3.12	38	3.25	25	60.08	39
208	15.1	65	3.27	13	3.38	8	52.68	83
245	15.1	66	3.29	6	3.42	5	70.32	8
191	15.1	68	3.11	45	3.23	28	57.70	61
247	15.1	69	3.29	7	3.40	7	70.89	7
107	15.1	70	2.94	101	3.04	117	61.76	35
20	15.0	71	2.91	109	3.04	116	46.73	119
18	15.0	72	2.98	83	3.10	90	63.94	23
151	15.0	73	2.95	96	3.09	91	49.20	111
17	15.0	74	2.97	89	3.08	96	56.45	67
136	14.9	75	3.10	53	3.21	40	40.93	131
97	14.9	76	2.95	95	3.05	105	49.21	110
13	14.8	77	2.98	84	3.12	84	55.73	73
140	14.8	80	3.08	60	3.18	54	46.03	120
155	14.8	81	2.90	113	3.02	127	51.78	92
210	14.8	82	3.33	4	3.43	4	73.11	3
189	14.8	83	3.22	15	3.32	15	58.58	52
64	14.8	84	3.08	61	3.17	61	64.90	18
146	14.7	85	3.11	52	3.19	53	54.63	75
99	14.7	86	2.96	94	3.03	119	59.79	44
14	14.7	87	2.98	82	3.10	89	54.45	77
70	14.7	88	2.86	130	2.96	137	51.36	95
72	14.7	89	3.11	51	3.18	57	63.05	27
148	14.7	90	3.10	54	3.21	38	45.31	123
153	14.6	91	3.02	78	3.14	72	59.11	48
149	14.6	92	3.04	71	3.15	70	60.37	38
142	14.6	93	3.07	66	3.16	67	55.95	72
50	14.5	94	2.97	90	3.07	102	51.44	94
88	14.5	95	2.96	92	3.04	109	58.87	49
156	14.5	96	2.92	108	3.03	123	48.79	113
143	14.4	97	3.14	36	3.21	39	58.53	53
21	14.4	98	2.92	106	3.03	124	59.17	47
138	14.4	99	3.15	34	3.22	30	63.86	24
147	14.4	100	3.11	47	3.19	51	65.08	17
78	14.3	101	3.20	19	3.24	27	51.89	91
95	14.3	102	3.09	58	3.16	68	66.31	12
7	14.3	103	3.09	57	3.17	62	52.28	89
94	14.3	104	3.12	44	3.18	56	58.08	57
209	14.3	105	3.36	2	3.45	2	59.49	46
32	14.3	106	3.11	46	3.21	37	62.05	32

Table 26. Means and ranks of protein, lysine/protein and adjusted lysine/protein for 133 experimental lines and 5 check varieties grown at 16 sites in the first high protein-high lysine observation nursery in 1975 with yield data from Yuma, Arizona. Concluded.

Entry no.	$\bar{x}$ Protein %	rank	$\bar{x}$ Lysine/protein %	rank	$\bar{x}$ Adjusted lysine/protein %	rank	$\bar{x}$ Yield q/ha	rank
145	14.3	107	3.27	10	3.33	13	62.76	30
150	14.3	108	3.18	27	3.27	21	56.68	65
16	14.2	109	3.03	74	3.11	86	62.77	29
188	14.2	110	3.18	26	3.27	22	64.60	20
152	14.2	111	3.08	63	3.17	60	61.89	34
84	14.2	112	3.16	32	3.21	35	52.74	82
35	14.2	113	3.11	50	3.20	43	52.52	85
22	14.2	114	3.03	73	3.13	80	56.51	66
178	14.1	115	3.21	17	3.24	26	62.98	28
212	14.1	117	3.40	1	3.46	1	62.11	31
36	14.1	118	3.12	40	3.20	41	52.34	87
141	14.0	119	3.14	37	3.19	49	61.69	36
34	14.0	120	3.11	48	3.19	47	45.65	122
15	13.9	122	3.02	76	3.09	93	58.86	50
69	13.9	123	3.11	49	3.17	63	58.34	55
96	13.9	124	2.97	88	3.04	118	61.95	33
68	13.8	125	3.25	14	3.29	19	66.31	12
55	13.8	126	3.16	33	3.21	33	57.15	63
54	13.8	127	3.12	41	3.18	55	65.71	14
5	13.8	128	3.06	68	3.13	79	56.95	64
23	13.8	129	3.07	65	3.13	78	64.48	21
92	13.8	130	3.09	56	3.14	73	64.05	22
66	13.6	131	3.17	29	3.22	29	64.89	19
10	13.6	132	3.15	35	3.19	46	56.42	69
73	13.5	133	3.17	31	3.20	42	60.03	41
4	13.5	134	3.21	16	3.21	34	67.26	11
9	13.4	135	3.12	43	3.13	74	55.05	74
93	13.4	136	3.19	23	3.20	44	59.84	43
71	13.4	137	3.12	39	3.14	71	63.61	26
57	13.3	139	3.17	28	3.19	52	50.89	97
11	13.3	140	3.21	18	3.21	36	76.01	2
56	13.1	141	3.27	9	3.26	24	54.06	80
58	13.1	142	3.27	12	3.28	20	59.97	42
Check varieties[4/]:								
Atlas 66	16.8	12.0	2.87	124.0	3.03	126.0	39.91	134.0
Bezostaya 1	14.8	78.0	2.86	129.0	2.95	139.0	57.87	59.0
Centurk	14.1	118.5	3.06	68.5	3.10	89.0	56.50	68.0
CI13449	13.3	138.0	3.34	3.0	3.33	11.0	71.58	6.0
Lancota	15.1	67.3	2.80	136.5	2.93	139.8	60.37	40.0
Statistics from analyses of variance based on 138 entries[5/]:								
Grand Mean	15.2		3.04		3.15			
L.S.D.$_{.05}$	0.91		0.10		0.09			
L.S.D.$_{.01}$	1.20		0.14		0.12			
Coefficient of variation(%)	8.70		4.91		4.34			

[4/] Data for Lancota and Centurk are based on four and two replications, respectively. All other check varieties have data for one replication only.

[5/] Statistical analyses completed for protein and lysine data only with locations serving as replication in analyses of variance.

Table 27. Location means and ranks of protein, lysine/protein, and adjusted lysine/protein with statistics from combined analyses for 133 experimental lines and 5 check varieties grown at 16 locations in the first high protein-high lysine observation nursery in 1975.

Location	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
Argentina	17.4	4	2.89	13	3.10	11
Chile	15.1	8	3.43	1	3.58	1
Egypt	14.6	9	3.04	8	3.14	7
Hungary	16.1	6	2.94	12	3.13	10
Iran	12.4	14	3.17	3	3.14	8
Jordan	13.4	12	3.03	9	3.08	13
Korea	18.2	3	2.86	14	3.07	14
Nepal	13.4	13	3.10	5	3.16	6
Netherlands	12.4	15	3.13	4	3.09	12
Pakistan	18.3	2	2.79	15	2.99	15
South Africa	15.3	7	3.03	10	3.17	5
Turkey, Ankara	18.9	1	2.77	16	2.98	16
Turkey, Eskisehir	14.5	10	3.08	6	3.20	3
USA, Arizona	11.8	16	3.28	2	3.19	4
USA, Oklahoma	16.7	5	3.03	11	3.22	2
Yugoslavia	13.9	11	3.06	7	3.14	9
Statistics:						
Grand Mean	15.2		3.04		3.15	
L.S.D. $_{(.05)}$	0.99		0.11		0.10	
Coefficient of variation (%)	8.70		4.91		4.34	

Table 28. Means and ranks of protein, lysine/protein and adjusted lysine/protein for 60 experimental lines and 3 check varieties grown at 17 sites in the first high protein-high lysine observation nursery in 1975 with yield data from Yuma, Arizona.[1/]

Entry	$\bar{x}$ Protein		$\bar{x}$ Lysine/protein		$\bar{x}$ Adjusted lysine/protein		$\bar{x}$ Yield[2/]	
no.	%	rank[3/]	%	rank[3/]	%	rank[3/]	q/ha	rank
27	17.0	1	2.78	63	2.97	61	49.73	51
110	16.7	2	2.80	61	2.98	57	39.49	63
127	16.6	3	2.79	62	2.97	60	71.87	1
52	16.5	4	2.89	53	3.06	44	45.12	58
165	16.3	5	2.89	52	3.06	45	49.44	52
29	16.1	6	2.87	54	3.04	52	41.72	59
12	16.0	7	2.94	44	3.10	41	54.35	39
30	15.9	8	2.91	49	3.07	43	48.44	55
154	15.9	9	2.81	60	2.98	58	39.62	62
108	15.9	10	2.90	51	3.06	46	49.86	50
19	15.8	11	2.86	59	3.02	55	50.41	49
87	15.8	12	2.86	57	3.00	56	56.26	36
28	15.8	13	2.96	42	3.11	39	40.62	61
132	15.7	14	3.10	24	3.23	11	52.47	42
109	15.7	15	2.91	48	3.04	49	69.03	6
79	15.5	16	2.94	45	3.04	50	51.49	46
159	15.5	17	2.98	39	3.12	38	59.52	26
249	15.4	18	3.32	2	3.44	1	70.10	5
250	15.4	19	3.19	10	3.32	6	65.29	11
248	15.4	21	3.20	9	3.34	4	63.68	17
107	15.0	22	2.94	46	3.04	51	61.76	22
245	15.0	23	3.30	3	3.43	2	70.32	4
247	15.0	24	3.29	4	3.41	3	70.89	3
151	14.9	26	2.94	43	3.09	42	49.20	53
13	14.9	27	2.97	40	3.11	40	55.73	37
136	14.9	29	3.10	25	3.21	14	40.93	60
64	14.8	30	3.07	31	3.17	26	64.90	36
148	14.6	31	3.09	28	3.20	16	45.31	57
70	14.6	32	2.87	55	2.97	59	51.36	47
153	14.6	33	3.01	37	3.14	33	59.11	28
149	14.6	34	3.04	35	3.15	31	60.37	25
88	14.5	35	2.96	41	3.05	47	58.87	29
156	14.5	36	2.91	50	3.02	54	48.79	54
147	14.4	37	3.11	20	3.20	20	65.08	12
21	14.4	38	2.93	47	3.04	53	59.17	27
138	14.4	39	3.14	14	3.22	12	63.86	16
78	14.4	40	3.20	8	3.24	9	51.89	45
95	14.4	41	3.09	29	3.17	27	66.31	8
32	14.3	42	3.11	23	3.21	15	62.05	18
7	14.3	43	3.10	27	3.18	24	52.28	44
35	14.2	44	3.11	22	3.20	17	52.52	41
152	14.2	45	3.07	32	3.17	28	61.89	21
22	14.2	46	3.02	36	3.12	37	56.51	34
36	14.1	47	3.11	19	3.20	18	52.34	43
69	14.1	48	3.09	30	3.15	29	58.34	30
34	14.1	49	3.11	21	3.20	21	45.65	56
141	14.1	50	3.13	15	3.19	23	61.69	23
54	13.9	51	3.11	18	3.18	25	65.71	10
96	13.9	52	2.98	38	3.04	48	61.95	20
68	13.9	53	3.23	6	3.28	7	66.31	8

1/ Data from Passo Fundo, Brazil; Tel Amara, Lebanon; and Lincoln, Nebraska, U.S.A. are not included in this analysis.

2/ Yield data are from a replicated yield nursery at Yuma, Arizona.

3/ Based on 65 observations with mean protein, lysine, adjusted lysine values used for Lancota.

Table 28. Means and ranks of protein, lysine/protein and adjusted lysine/protein for 60 experimental lines and 3 check varieties grown at 17 sites in the first high protein-high lysine observation nursery in 1975 with yield data from Yuma, Arizona. Concluded.

Entry no.	$\bar{x}$ Protein %	rank	$\bar{x}$ Lysine/protein %	rank	$\bar{x}$ Adjusted lysine/protein %	rank	$\bar{x}$ Yield q/ha	rank
5	13.9	54	3.05	34	3.13	35	56.95	33
55	13.9	55	3.15	12	3.22	13	57.15	32
23	13.8	56	3.06	33	3.13	36	64.48	14
92	13.7	57	3.10	26	3.14	32	64.05	15
10	13.6	58	3.14	13	3.19	22	56.42	35
4	13.5	59	3.23	7	3.24	10	67.26	7
9	13.4	60	3.12	17	3.13	34	55.05	38
71	13.4	61	3.13	16	3.15	30	63.61	18
57	13.3	62	3.18	11	3.20	19	50.89	48
56	13.1	64	3.27	5	3.26	8	54.06	40
Check varieties:[4/]								
Bezostaya 1	14.9	28.0	2.86	56.0	2.96	63.0	57.87	31.0
CI13449	13.3	63.0	3.33	1.0	3.33	5.0	71.58	2.0
Lancota	15.2	22.5	2.81	61.0	2.94	63.0	61.47	24.0
Statistics from analyses of variance based on 63 entries:[5/]								
Grand Mean	14.8		3.04		3.14			
L.S.D.$_{.05}$	0.8		0.10		0.09			
L.S.D.$_{.01}$	1.1		0.13		0.12			
Coefficient of variation (%)	8.3		4.80		4.22			

4/Data for Lancota are based on the mean of two replications while data for Bezostaya 1 and CI13449 are from 1 replication only.

5/Statistical analyses completed for protein and lysine data only.

Table 29. Location means and ranks of protein, lysine/protein, and adjusted lysine/protein with statistics from combined analyses for 60 experimental lines and 3 check varieties at 17 locations in the first high protein-high lysine observation nursery in 1975.

Location	Protein		Lysine/protein		Adjusted lysine/protein	
	%	rank	%	rank	%	rank
Argentina	16.9	4	2.88	14	3.08	12
Chile	14.9	8	3.44	1	3.58	1
Egypt	14.0	11	3.06	7	3.15	7
Hungary	15.9	6	2.93	13	3.11	10
Iran	12.3	15	3.15	3	3.12	9
Jordan	12.9	14	3.03	11	3.05	14
Korea	17.9	2	2.83	15	3.04	15
Lebanon	15.0	7	3.02	12	3.18	4
Nepal	13.2	13	3.10	5	3.15	8
Netherlands	12.3	16	3.12	4	3.07	13
Pakistan	17.7	3	2.82	16	3.02	16
South Africa	14.8	9	3.03	10	3.16	6
Turkey, Ankara	18.1	1	2.75	17	2.96	17
Turkey, Eskisehir	14.2	10	3.07	6	3.17	5
USA, Arizona	11.7	17	3.29	2	3.19	3
USA, Oklahoma	16.0	5	3.04	9	3.22	2
Yugoslavia	13.6	12	3.05	8	3.11	11
Statistics:						
Grand Mean	14.8		3.04		3.14	
$L.S.D._{(.05)}$	0.89		0.11		0.10	
Coefficient of variation (%)	8.30		4.80		4.22	

Table 30. Mean values of protein quality data for the six check varieties in the high protein-high lysine observation nursery grown in 1975.

Variety	Nine sites[a] Protein	Lysine/ protein	Adjusted lysine	Six sites[b] Protein	Lysine/ protein	Adjusted lysine
	%	%	%	%	%	%
Atlas 66	16.3	2.84	2.98	15.9	2.83	3.00
Lancota	14.9	2.81	2.93	14.4	2.83	2.94
Bezostaya 1	14.2	2.85	2.93	13.8	2.89	2.98
Centurk	13.6	3.06	3.11	13.4	3.02	3.07
CR8156	13.6	3.00	3.03	13.0	3.00	3.02
CI13449	12.5	3.35	3.27	12.1	3.38	3.30
Overall means	14.2	2.98	3.04	13.8	2.99	3.05
$LSD_{.05}$ of the means	1.0	0.13	0.11	1.1	0.13	0.10
Coefficient of variation (%)	6.1	3.8	3.1	6.2	4.1	3.3

[a] Means based upon three replications at the following nine sites: Temuco, Chile; Martonvasar, Hungary; Karaj, Iran; Amman, Jordan; Wageningen, The Netherlands; Bethlehem, South Africa; Ankara and Eskisehir, Turkey; and Zagreb, Yugoslavia.

[b] Means based upon four replications at the following six sites: Martonvasar, Hungary; Karaj, Iran; Amman, Jordan; Bethlehem, South Africa; Eskisehir, Turkey; and Zagreb, Yugoslavia.