

PROJECT TITLE: Germplasm evaluation of einkorn accessions on dryland.

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OBJECTIVES: To evaluate the covered wheat einkorn in comparison to other spring grain.

RESULTS: Table 1 gives the data for the 1993 study. Weather stress, and some damage from the wild oat herbicide caused reduced and variable yields. Only 1 replication shows that several lines can yield as well as Amidon and Newana spring wheat, Lewis barley, and Otana oats. A Turkey selection PI 182462 yielded most at 2427 Lb/A. Test weights ranged from 23 to 60 Lb/Bu.

SUMMARY: We are evaluating einkorn as it is the third in the series of covered wheats: spelt, emmer, and einkorn. Some lines yield with current small grains and may have some potential. The evaluation will continue as we feel einkorn can be a grain for a specialty niche markets.

FUTURE PLANS: We will select from these lines and develop a replicated trial to continue to evaluate einkorn selections.

TABLE 1. 1993 DRYLAND EINKORN INCREASE NURSERY, SARC, HUNTLEY, MT.

VARIETY	LB/AC LB/BU	INCHES	DATE
YIELD TESTWT PLANTHT HEAD			
P1182462 P1182462 (TURKEY)	2427.27	58.40	28.00
AMIDON	2277.04	61.80	29.00
1 NEWANA	2031.13	61.20	26.00
3 LEWIS	1975.91	52.20	25.00
P1378469 1744 (YUGOSLAVIA)	1882.62	45.40	33.00
4 OTANA	1793.10	25.70	25.00
P1182461 HARLAN J R 6518 (TU)	1745.94	60.40	23.00
P1225164 KAPLOUTRAS (GREECE)	1712.50	35.50	31.00
P1167526 HARLAN J R 2485 (TU)	1591.08	46.60	31.00
P1286068 (POLAND)	1570.33	49.40	31.00
P1167591 HARLAN J R 3094 (TU)	1502.42	48.20	28.00
P1167589 HARLAN J R 3072 (TU)	1499.68	48.50	29.00
P1167627 HARLAN J R 3412 (TU)	1477.39	38.70	28.00
CI 13964 W 49-1-3 (USA)	1475.67	38.90	27.00
P1167634 HARLAN J R 3465 (TU)	1440.52	30.70	35.00
CI 7686 SPRING SPELTZ	1425.25	55.00	33.00
P1352483 T-1600 (SPAIN)	1411.02	51.10	34.00
P1190945 3962 (SPAIN)	1389.76	49.70	29.00
P1290511 SPANICHES EINKORN (	1384.10	46.50	34.00
P1170196 HARLAN J R 2498 (TU)	1376.89	39.60	27.00
P1355547 (AUSTRIA)	1374.32	44.00	32.00
P1355548 (AUSTRIA)	1279.83	27.10	33.00
P1221329 (YUGOSLAVI	1279.83	27.10	33.00
P1167611 HARLAN J R 3281 (TU)	1236.79	48.00	29.00
P1352482 G 81 (TURKEY)	1223.07	48.50	34.00
P1306542 (ROMANIA)	1220.49	53.60	31.00
P1265008 (YUGOSLAVI	1194.60	54.20	28.00
P1428158 (UNITED KI	1168.88	31.30	27.00
P1538722 (TURKEY)	1162.36	45.40	28.00
PI 94740 DICKSON J G 287 (SP	1094.28	39.20	27.00
CI 2433 EINKORN (GERMANY)	1091.53	37.90	29.00
P1168803 SANDO 1 (USA)	1069.24	55.60	30.00
P1355538 6925.28 (GERMANY)	1064.27	57.00	26.00
CI 13965 G 68-3288 (USA)	1047.12	41.20	28.00
P1168805 SANDO 3 (USA)	1045.75	50.80	25.00
P1167615 HARLAN J R 3304 (TU)	1045.75	32.40	24.00
P1221393 (YUGOSLAVI	1025.00	49.70	28.00
P1272558 I-1-1914 (HUNGARY)	983.32	37.00	32.00
P1221414 (YUGOSLAVI	930.33	43.70	29.00
P1518452 (SPAIN)	918.33	35.50	32.00
P1355526 (BELGIUM)	891.23	45.20	31.00
CI 14520 G68-2915 (CANADA)	889.69	33.00	34.00
P1119435 WESTOVER H L 2592 (	888.66	37.00	35.00
P1190947 3872 (SPAIN)	814.92	36.70	28.00
P1355544 (GERMANY)	782.68	49.40	28.00
CI 17662 MONOCOCUM MUTANT 29	777.88	34.70	29.00
P1306547 (ROMANIA)	766.22	54.70	33.00
P1326317 K-18140 (USSR)	764.33	24.00	33.00
P1277133 A TRI 1509/58 (EURO	757.64	39.20	25.00

Table 1. cont.

1993 EINKORN INCREASE NURSERY (CONT).

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PI306544	PI306544	(ROMANIA)	757.64	24.30	33.00	180.00
PI355523	PI355523	(GERMANY)	747.87	39.50	27.00	180.00
PI168806	DOUBLE EINKON	(USA)	741.52	33.90	26.00	172.00
PI290509	BLAUER KAHLER	(HUNG)	722.14	30.50	27.00	170.00
PI428166	PI428166	(TURKEY)	695.74	39.40	27.00	171.00
PI355537	69Z5.27	(TURKEY)	693.51	23.40	36.00	180.00
PI277135	A TRI 1986/56	(EURO)	675.84	50.50	32.00	179.00
PI168804	SANDO 2	(USA)	645.49	44.30	26.00	171.00
PI355516	PI355516	(GERMANY)	645.49	35.30	27.00	178.00
PI355528	69Z5.17	(GERMANY)	636.40	33.90	30.00	170.00
PI266844	PI266844	(UNITED KI)	622.34	51.30	29.00	177.00
PI377662	984	(YUGOSLAVIA)	570.89	33.30	23.00	172.00
PI289605	162	(UNITED KINGDOM)	563.86	42.20	30.00	176.00
PI306543	PI306543	(ROMANIA)	554.94	48.20	23.00	175.00
PI277130	A TRI 613/59	(EUROP)	548.25	41.30	28.00	181.00
PI272561	I-1-3508	(HUNGARY)	539.34	24.30	25.00	180.00
PI418582	VIR 18105	(USSR)	520.82	47.40	24.00	179.00
PI538723	PI538723	(TURKEY)	516.36	28.40	34.00	185.00
PI393496	EIKORN	(ISRAEL)	513.78	57.00	25.00	172.00
CI 13963	W 49-23	(USA)	509.67	50.20	27.00	173.00
PI277138	A TRI 3409/56	(GERM)	503.32	39.80	25.00	179.00
PI221413	PI221413	(YUGOSLAVI)	498.69	26.80	28.00	180.00
PI362616	VII/8-X21	(YUGOSLAV)	437.47	30.30	25.00	175.00
PI377648	982	(YUGOSLAVIA)	428.55	21.70	28.00	184.00
PI377666	PI377666	(YUGOSLAVI)	413.12	40.60	21.00	172.00
PI306545	PI306545	(ROMANIA)	412.60	33.30	28.00	180.00
PI272560	I-1-3516	(HUNGARY)	408.49	38.90	27.00	179.00
PI272563	I-1-3515	(HUNGARY)	408.49	42.80	28.00	177.00
PI355549	PI355549	(AUSTRIA)	378.82	38.40	22.00	173.00
PI355529	69Z5.18	(BELGIUM)	377.28	34.40	24.00	180.00
PI264935	PI264935	(GREECE)	337.66	42.50	36.00	179.00
PI362610	VII/7-X21	(YUGOSLAV)	326.35	35.30	25.00	173.00
PI290508	V J 388	(HUNGARY)	320.17	31.30	26.00	177.00
PI306546	PI306546	(ROMANIA)	289.48	30.20	28.00	183.00
PI119423	WESTOVER H L 1277	(	284.67	29.90	26.00	177.00
PI538721	PI538721	(TURKEY)	266.84	31.40	25.00	172.00
PI306540	PI306540	(ROMANIA)	240.09	20.60	26.00	180.00
PI355517	69Z5.4	(GERMANY)	221.05	18.30	25.00	178.00
PI190942	2492	(SPAIN)	213.85	28.20	29.00	181.00
PI277131	A TRI 616/59	(EUROP)	200.99	23.70	27.00	179.00
CI 17655	MONOCOCCUM MUTANT 6		195.50	29.30	25.00	171.00

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DATE PLANTED: 4/05/93
DATE HARVESTED: 8/23/93