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OHIO POTATO CULTIVAR TRIALS

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The 1987 Ohio Potato Cultivar Trials were sponsored jointly by the Ohio Agricultural Research and Development Center, The Ohio State University, The Ohio Cooperative Extension Service, The Ohio Potato Growers Association, and the five cooperating potato operations: Chase Farms, Logan Farms, Michael Farms, Mellinger Farms, and Thompson Farms.

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STATEWIDE TRIALS - 1987

Introduction

The purpose of the statewide variety trials is to test new varieties for the benefit of Ohio growers under various farm conditions. Cultural and pest control practices in each case are those used by the cooperating grower. Stand, vigor, plant characteristics of diseases, and maturity were recorded in the fields. At harvest the tubers were evaluated, weighed, and graded, with samples taken for chipping tests.

Eight cultivars were planted in each of five farms. These farms were selected in order to give different soil and climate conditions. The cultivars were selected either because they looked promising in previous over-the-state trials or looked promising in the observation trials on two cooperating farms or were selected from the cultivar plots at the Ohio Agricultural Research and Development Center (OARDC), Wooster. The Katahdin and Norchip cultivars were included as standard varieties.

In addition, the main cultivars were planted at the Campbell Institute for Research and Technology (Napoleon, Ohio), the Muck Crops Branch (Willard, Ohio) and the OARDC. The data from these locations will be included in this report.

Farm Locations

The five farms referred to in the introduction are as follows:

Farm 1 (M) - Michael Farms, Urbana, Ohio, Champaign County -- main plots plus russet plots.

Farm 2 (TH) - Thompson Farms, Hanoverton, Ohio, Columbiana County -- main plots plus observation plots.

Farm 3 (Mel) - Mellinger Farms (Crystal Springs Farm), Leetonia, Ohio, Columbiana County -- main plots plus observation plots.

Farm 4 (L) - Logan Farms, Mt. Gilead, Ohio, Morrow County -- main plots plus Monona seed source plots.

Farm 5 (C) - Chase Farms, Defiance, Ohio, Defiance County -- main plots plus russet plots. Harvest was delayed due to wet weather.

See table 2 for summary of cultural practices followed on these cooperating farms -- planting dates, harvest dates, rainfall and related information.

Procedures

Eight cultivars were planted in four replicates in most cases on each of the five farms. In addition, 13 additional cultivars were planted for observation in smaller triplicated plots on Farms 2 and 3. Also, ten russet cultivars were likewise planted on Farms 1 and 5, and six different sources of Monona were similarly planted on Farm 4.

Farms 1 and 4 were planted May 1 to 14, but planting at Farm 5 was delayed by rain until June 17. The growers' planters were used by driving very slowly. The potatoes were harvested with old flat bed diggers, then picked up and weighed. A representative 50 lb sample was then graded with ten tubers cut for internal defects. A sample of each cultivar was then taken to O.S.U. for chip test.

Katahdin and Norchip were used for comparison in the main trials, Superior, Atlantic, and Kennebec in the observation trials and Belrus and Russet Burbank in the Russet trials. During the growing season, stand counts were made and plant disease and stress were recorded as well as maturing season.

Weather and Growing Conditions

The winter of 1986-87 was unusually warm and dry. This was followed by a warm and dry spring in 1987, in which a few days were hot. June and July were extremely hot and humid, and July was generally quite dry. Farm 4 lies in an area of Ohio later designated a distress area due to excessive rain and flooding early in the season. It was followed by the July and early August dry period. The rainfall condition at Farm 5 is explained later under the tuber defects. Farm 1 was partially irrigated throughout the season, but was not throughly irrigated due to location of the test plots for the July 30 Ohio Potato and Vegetable Field Day.

On Farm 2, Lorox + Dual was applied, but the second and final cultivation was missed due to rains until the plants were too large. As a result, a heavy growth of weeds, mostly ragweed, between the hilled rows apparently absorbed the limited moisture resulting in unusual and extremely low yields of some of the replicates. Most of the replicate samples were discarded as not indicative of the yielding ability of those cultivars. These extremely low yields were in the area where the weed growth was greatest. Also, as explained later under plant stress, heat and air pollution may have caused considerable injury. Farm 3, with the highest yields of the five farms, had adequate rainfall in June (4.3" on July 1 and 2, and 1" on July 29) to offset the dry July and August period.

Yields

Gross yields as well as U.S. No. 1 yields are shown in the attached tables for the main trials as well as other data. The percent of U.S. No. 1 tubers and the CWT per acre and shown in the other tables. The yields varied greatly from farm to farm. They averaged lower than in some years.

Stands

Stands were good in 1987. Favorable conditions existed, with May and early June being unusually warm and receiving sufficient rainfall. No stand count was made on Farm No. 5 because of very late planting in relation to the other four farms.

The average percentage of a perfect stand on the other four farms for the main trials was 92.5%. With quite similar spring conditions in 1986, the average

was 95%, the highest on record. The average for the preceding 11 years was 87%, of which the highest was in 1984 at 91%.

The 1987 average for the observation trials on two farms was 88%, for the Russet trials on Farm 1, 88%, and for the Monona trials on Farm 4, 95%.

Because of the uniformity and excellence of stand, no stand data pertaining to the various entries is being included in this report.

Plant Disease, Stress, and Injury

Early blight was severe on Farm 2 on Norchip, Chippewa, Russet Norkotah, ND860-2, and Conestoga in the main trials and in ND1113-10, W848, Sunrise, Yukon Gold, and Norland in the observation trials. It was noted moderate to severe on LA01-38, Katahdin, Atlantic, and NemaRus. It was moderate on Superior and W779. It was only slight on the others, MS700-70, B7592-1, Campbell 14, Kennebec, W855, and Elba.

Severe stress injury occurred on many cultivars on Farm 2 in late July from air pollution and the excessive heat and lack of moisture. Almost none was found on Farm 3, 13 miles away from Farm 2. The difference might be explained by 4.3" of rainfall on Farm 3 on July 1 and 2, and only 2.1" on Farm 2 on the same dates plus weed problems on the latter. Neither farm had any appreciable rainfall for four weeks after July 1-2. Farm 2 lies in a valley, while Farm 3 is on level land. The records were taken on both farms on July 28. It had been excessively hot and humid for the preceeding week. On July 29, Farm 4 showed similar injury, particularly in the replicates on the lower side of a small slope in the plot area.

The injury was severe on Norland, ND860-2, Sunrise, and Conestoga. It was moderate on Yukon Gold, Chippewa, Norchip, Russet Norkatah, and B7592-1. None was seen on Katahdin, Superior, MS700-70, and Elba. All of the other entries showed slight injury. At Farm 4, the most severly injured were replicates of ND860-2, Russet Norkotah, Norchip, and Conestoga, and of course, Norland. The same cultivars showed very slight injury at Farm 3.

Tuber Defects

The attached tables briefly list the external defects. Very little scab was found in 1987. The other defects were mostly misshapen, growth cracks, and second growth.

Internal defects were generally minor and much less than in many years, except on Farm 5. Ten tubers from each replicate were cut. Only defects exceeding 5% of all tubers cut of any cultivar were listed herein.

On Farm 1, LA01-38 and Norchip each showed 10% stem end discoloration. On Farm 2, LA01-38 showed 7% stem end discoloration, Atlantic had 13% internal discoloration, and NemaRus and Elba each had 10% of the latter. On Farm 3, internal discoloration was 10% in Norchip, 30% in Atlantic, and 13% in Elba. Stem end discoloration was found in Katahdin at 12.5% and in Elba at 10%. No defects over 5% were seen on Farm 4.

At Farm 5, an unusual season gave unusual results. As already stated, rains in May delayed planting until June 17. Three inches more rain then fell until the plants would have fully emerged. Then, when moisture was badly needed for plant growth and tuber formation, only 1.4" of rain fell for over four weeks. Beginning August 22, over 4" of rain fell in nine days, with adequate rains through September. This resulted in very late and very rapid growth resulting in every entry except MS700-70 showing some degree of hollow heart (H.H), some of it very severe.

In the main trials, the cultivars showing above 5% H.H. were Russet Norkotah 505, LA01-38 30%, Norchip 10%, and Katahdin 22.5%. All of the russets were over 5% and the percentages are listed below.

A7652-1	77	Belrus	37	A72685-2	17
NemaRus	17	A75188-3	10	AC77513-1	77.5
ND671-4	37	Rus, Burbank	13	ND534-4	20

These with a high percentage might be considered to be very susceptible to hollow heart.

TABLE 1. Soil Analysis, 1987, Statewide Trials
*Cooperating Farms

	1 - M	2 - TH	3 - MEL	4 - L	5 - C
pH	5.9	5.6	6.2	5.7	6.2
P (lbs/A)	250+	250+	250+	128	106
K (lbs/A)	619	563	412	315	160
Ca (lbs/A)	2450	1280	3020	2310	2150
Mg (lbs/A)	533	334	157	234	133
C.E.C. MEQ	13	10	11	12	6
Ca % B.S.	48	32	68	48	88
Mg % B.S.	17	14	6	8	9
K % B.S.	6.2	7.1	4.7	3.4	3.3
Mn (lbs/A)	104	88	81	70	44
Zn (lbs/A)	19.9	18.9	16.6	8.6	7.2
B (lbs/A)	.9	1.2	1.6	.6	.8
O.M %	2.5	2.1	2.7	2.6	1.4

* 1 - Michael Farms, Urbana
2 - Thompson Farms, Hanoverton
3 - Mellinger Farms, Leetonia
4 - Logan Farms, Mt. Gilead
5 - Chase Farms, Defiance

Soil analyses made by REAL Laboratory, Ohio Agricultural Research and Development Center, Wooster, Ohio.

TABLE 2. Total Yield, Marketable Yield, and Percent U.S. No. 1 for Main Trial Cultivars; Statewide Trials, 1987.

	Farm 1 (M)			Farm 2 (TH)			Farm 3 (Mel)			Farm 4 (L)			Farm 5 (C)			Total (Farms 1-5)		
	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %	Total Yield cwt/A	U.S. No.1 cwt/A	U.S. No.1 %
Chippewa	265	228	87	161	147	91	463	417	90	352	309	88	403	344	85	329	289	88
Conestoga	233	208	89	164	132	80	371	336	91	-	-	-	-	-	-	256	225	88
Katahdin	234[z]	204	87	118	105	89	455	413	91	350	320	91	378	339	90	307	276	90
LA01-38	360	343	95	149	132	89	477	435	91	423	409	97	391	351	85	360	330	92
MS 700-70	159[z]	148	93	216	189	88	455	422	93	394	371	94	337	274	81	313	281	90
Norchip	248	198	80	177	141	80	484	399	82	342	266	78	418	180	43	334	236	71
ND860-2	262	227	87	145	126	87	401	361	90	265	240	91	290	251	87	273	241	88
Russet Norkotah	341	289	85	159	132	83	446	390	87	298	264	89	381	284	75	325	272	84
Mean	249	231	93	161	138	86	444	397	89	347	311	90	371	289	78	314	273	87

[z] Some replicates damaged by irrigation wheel.

TABLE 3. Summary of the Main Trials - Average of five farms by entry, 1987

Entry	Total Yields cwt/A	Percent B's	Percent Culls	Percent U.S. No.1	U.S. No.1 Yields cwt/A	Major Defects External Average % Culls
LA01-38	360	2.7	6.5	90.8	330	
Chippewa	329	4.1	7.9	87.9	298	7.8 Sh. 2nd.
MS700-70	313	3.6	7.6	88.8	281	6.2 Sh. 2nd. Cr.
Katahdin	307	3.8	6.7	89.6	276	6.2 Sh. 2nd.
Average	314	5.0	9.2	85.9	273	
Russet Norkotah	325	6.3	10.4	83.4	272	10.4 Sh. 2nd.
ND860-2	273	8.4	3.7	88.0	241	
Norchip	329	7.0	20.3	72.7	236	20.3 Sh. 2nd. Cr.
Conestoga	256	4.3	9.4	85.8	225	6.7 Sh. Cr.

Most outstanding Characteristics Reported and/or Observed in Ohio
(Listed in order of 1987 Maturity)

CULTIVAR	MATURITY SEASON	DESIRABLE	UNDESIRABLE
ND860-2	V. Early	Chips out of cold storage	Susc. to field sprouting and sev. stem rot in '86. Below Av. Yield. Severe EB. and air pollution/heat Injury '87.
Conestoga	V. Early	Good Yields	Susc. to scab, H.H., stemrot and air pollution injury.
Russet Norkotah	Early	Long Rus. High Sp. Gr. Chips out of storage	Yield only average, Susc. to EB
Chippewa	Med. E	Good Yields and grades	Susc. to scab and most diseases. V. Susc. to Leaf roll. Cooking quality good to poor.
Norchip	Med. E	Good chipper Sets heavily, needs spacing	Susc. to most diseases incl. EB and to Sencor and stress injury. Yields & grades can be low.
LA01-38	Midseason	High yields & grades, Good chips. Res't. to most dis. Good Sp. Gr.	Mod. to severe EB in '87. Skins easily.
Katahdin	Midseason	Res't. to most diseases and stress.	Susc. to tuber greening. Also, EB in '87.
MS700-70	Late	Good yields and grades, High Sp. Gr. Res't. to stress	Very Susc. to Mosaic, stem rot, scab and Int. Dis.

Sh - shape; EB - early blight; Int. Dis. - internal discoloration;
2nd - second growth; Cr - growth cracks

TABLE 4. Average Yields and Grades of Observation Trials. Cultivars, by farm and average, of U.S. No. 1 tubers. 1987. (Percent U.S. No. 1 and cwt/A)

Farm No. 2 - TH			Farm No. 3 - MEL			Average		
Entry	%	cwt	Entry	%	cwt	Entry	%	cwt
Atlantic	87	169	Kennebec	75	430	Kennebec	78	282.5
NemaRus	83	154	Elba	89	407	Atlantic	88	280
Campbell 14	95	143	W855	83	399	Elba	87	270.5
Kennebec	81	135	Atlantic	89	391	W855	91	267
W855	90	135	Sunrise	91	390	Campbell	91	257.5
Elba	86	134	B7592-1	90	390	W848	83	251
Yukon Gold	95	128	W848	83	380	Sunrise	89	248
W848	81	122	Superior	92	375	B7592-1	79	246.5
B7592-1	72	121	Campbell 14	92	372	Superior	89	243
Superior	87	111	Yukon Gold	87	363	NemaRus	85	228.5
Sunrise	88	106	W779	74	311	Yukon Gold	91	220
W779	67	82	NemaRus	87	303	W779	70	196.5
Average	84	128	Average	87	372	Average	85	250

V. Early- Sunrise. Early- Yukon Gold. Med. Early- ND1113-10.
Midseason- NemaRus, W779, Atlantic, W848, Kennebec, B7592-1, Superior.
Late- Campbell 14, W855. Very Late- Elba.

SOME OUTSTANDING CHARACTERISTICS

W855	Good yields and grades. Res't. to EB
Campbell 14	For fresh market, Good yields and grades, stores well. HIgh Sp. Gr. Tolerant to Vert. and EB.
W848	Susc. to EB Av. yields and grades.
Sunrise	Similar to Superior. Will not recondition. Yields and grades average or below. Susc. to EB, air pollution, scab, vert, most dis.
B7592-1	Res't. to EB and Mod. to stress.
Superior	Standard early variety for Ohio. (midseason in '87). Susc. to most diseases, stress, and early dying. Chips and cooks. Usually uniform.
NemaRus	For table and processing. Susc. to EB.
Yukon Gold	Yields about av., grades good, yellow flesh. Will not recondition. Susc. to EB, stress, H.H. scab, most diseases, bruising.
W779	Russet, low yields and grades on both farms. High in OARDC Observation in '86.
Kennebec	Low grades, but high yields. Good chipper. Exc. cooker. Susc. to Vert. wilt.
Atlantic	High yields, grades and Sp. Gr. Chips. Susc. to H.H., EB, etc. plant and harvest early in Ohio.
Elba	Very late. High yields. Good grades. Not a chipper, Res't. to L.B., EB, Vert., etc. Susc. to scab.

TABLE 5. Average Yield and Grades of Russet Trials. Cultivars, by farm and average of U.S. No. 1 tubers, 1987. (percent U.S. No. 1 and cwt/A)

Farm No. 1 - M			Farm No. 5 - C			Average		
Entry	%	cwt	Entry	%	cwt	Entry	%	cwt
NemaRus	85	217	(1)ND534-4	87	362	ND671-4	82	268
ND671-4	80	205	A75188-3	90	340	ND534-4	74	263
(1)ND534-4	62	165	ND67104	84	331	NemaRus	84	243
Belrus	60	119	A72685-2	85	305	A72685-2	79	207
A72685-2	72	109	AC7652-1	80	298	A75188-3	80	195
AC77652-1	70	85	NemaRus	82	268	AC7652-1	75	192
AC77513-1	70	64	AC77513-1	71	268	AC77513-1	71	166
A75188-3	70	50	Belrus	64	191	Belrus	62	155
Rus Burbank	23	44	Rus Burbank	48	173	Rus Burbank	36	109
Average	66	118	Average	77	282	Average	71	200
W752	90	313						
Norland	86	272						
Norland	82	236						
Average-12	71	157						
Av. omitting Rus Burbank		167						

(1) Russet Norkotah

Some Known Characteristics

ND534-4	(see Main Trials)
NemaRus	For table use. H.H. problem.
Belrus	Low yields, V. Susc. to EB, etc.
A72685-2	For table use. Long, good yields.
Burbank	High Sp. Gr. Not adapted to Ohio.

TABLE 6. Source of Seed Trials - Monona - 1987. Total weight, average percent U.S. No. 1 and cwt/A.

STATE	TOTAL	% U.S. No. 1	CWT/A
Maine	124.5	89.5	343
New York (Mehl.)	109.3	92.3	311
	109.2	90.2	296
Nebraska	94.3	90.1	261
New York (Kent)	102.5	88.8	261
Wisconsin	84.3	88.3	231
Average	103.2	88.8	284

POTATO VARIETY TRIAL 1987

MUCK CROPS BRANCH
O.A.R.D.C. - O.S.U.

Variety	Marketable cwt/A	Large Tubers cwt/A	Culls cwt/A	Ct/8 lbs	Specific Gravity
Donna	249	27	85	18	1.063
Norchip	223	32	34	27	1.069
Red Norland	206	38	39	26	1.060
Atlantic	205	28	6	25	1.078
NY 81	191	27	17	19	1.065
Conestoga	186	43	23	31	1.065
8N 9803-1	185	40	21	27	1.075
MS 700-83	183	31	2	26	1.068
ND 860-2	183	32	20	30	1.066
Monona	181	17	53	22	1.060
NY 79	173	34	13	32	1.062
Chippewa	165	19	32		
NY 76	164	42	20	35	1.060
W848	163	17	24	17	1.062
Katahdin	148	20	24	21	1.060
MS 700-70	139	27	16	29	1.068
ND 1113-10	130	37	40	24	1.060
ND 671-4 Russ	120	34	22	21	1.065
AF 235-1	112	20	14	19	1.068
Russet Burbank	108	40	49	31	1.062
LA 01-38	102	20	11	20	<1.060
Russet Norkotah	94	26	24	18	<1.060
NemaRus	92	17	10	25	1.063
A 72685-2	58	18	11	36	1.060

Seeded: May 28, 1987

Harvested: September 9, 1987

Plot size: 2 row, 32" apart, 28' long

3 replications/variety

REPLICATED POTATO VARIETY RESULTS

CAMPBELL INST. OF RESEARCH AND TECHNOLOGY

NAPOLEON, OH 1987

Variety	Yield cwt		Percent by Weight			Percent Internal Browning
	Total	Usable	<1 7/8"	>1 7/8"	Rot	
Conestoga	275	253	8.6	91.4	0.1	8
LA01-38	264	232	12.3	87.6	0.1	18
MS 700-83	262	227	9.8	86.1	4.1	10
Norchip	262	218	17.4	82.4	0.2	8
ND 860-2	257	224	13.1	86.7	0.2	8
Chippewa	239	204	14.3	85.3	0.4	52
WIS 832	227	196	10.4	87.0	2.6	8
MS 700-70	195	166	14.9	84.9	0.2	2
Monona	189	162	13.9	85.2	0.9	52
Russet Norkotah ND534-4	169	112	33.2	65.9	0.9	25
Katahdin	166	134	18.3	80.1	1.5	45
NemaRus	69	18	76.5	22.3	1.3	12
Waller LSD 0.05	51	49	7.8	8.5	3.3	22
C.V.	17.7	20.3	29.9	8.3	166.9	75.3
Mean	215	179	20.2	1.0	2.1	

Planted: May 22, 1987

Harvested: September 8, 1987

Plot size: single row, 34" x 20'

4 replications

OBSERVATION POTATO VARIETY TRIAL RESULTS

CAMPBELL INST. OF RESEARCH AND TECHNOLOGY

NAPOLEON, OH 1987

Variety	Yield cwt		Percent by Weight			Percent Internal Browning
	Total	Usable	<1 7/8"	>1 7/8"	Rot	
Atlantic	371	347	5.6	93.4	1.0	10
NY 81	306	266	12.1	86.9	1.0	10
MS 716-15	305	271	10.9	88.9	0.3	0
Denali	296	138	16.9	80.5	2.6	40
MN 12567	293	231	21.0	79.0	0	60
MS 702-80	277	261	4.7	94.4	0.8	20
WIS 779	275	239	12.0	86.9	1.1	50
ND 651-9	268	240	9.5	89.4	1.1	0
W 752	268	222	16.4	83.0	0.6	0
NDT 9-1068-11R-5	264	235	9.9	88.9	1.2	20
NY 79	251	221	7.7	88.3	4.0	10
F 70021	250	228	6.2	91.1	2.8	0
Sunrise	245	207	15.4	84.6	0	20
NY 76	241	175	27.4	72.6	9	10
Norgold (Super)	225	157	29.4	69.6	1.0	30
A219.70-3	219	188	13.7	85.6	0.7	10
WIS 879	214	158	13.3	73.7	13.0	60
NY 71	195	150	19.0	77.1	4.0	0
MN 12331	181	108	40.4	59.6	0	0
AF 236-1	175	135	22.0	77.1	0.9	50
WIS 848	174	139	19.9	80.1	0	10
Kennebec	168	128	22.8	75.8	1.4	60
Superior	165	148	9.8	89.7	0.5	0
WISC 80-26.86	145	68	52.9	47.1	0	30
NY 78	144	89	36.9	62.0	1.1	20
WIS 921	139	81	39.2	58.0	2.8	10
NEA 71.72-1	119	92	21.9	76.8	1.3	50
BN 9803-1	116	62	29.8	53.6	16.6	60
ND 671-4	84	52	34.9	62.4	2.8	10
MN 12945	46	21	55.0	45.0	0	10

Planted: May 22, 1987

Harvested: September 8, 1987

Plot size: single row, 34" x 20'

No replications

CHIP TRIALS TABLE 1. Yield, Marketable Yield, Percentage of Yield by Grade Distribution and Specific Gravity for Cultivars Grown at Wooster, Ohio - 1987.

Cultivar	Total Yield cwt/A	U.S. No. 1 cwt/A	U.S. No. 1 %	B size %	Culls %	Specific Gravity
Atlantic	261	191	73	7	20	1.095
MS 700-70	231	150	65	13	22	1.084
MS 702-80	237	161	68	11	21	1.086
MS 700-83	332	236	71	14	15	1.084
Denali	279	193	69	14	17	1.092
Monona	202	119	59	17	24	1.072
BN 9803-1	272	174	64	15	21	1.081
W779	276	193	70	10	20	1.085
W848	308	228	74	9	17	1.082
LA01-38	283	226	80	10	10	1.080
Norchip	309	204	66	13	21	1.078
ND860-2	244	159	65	14	21	1.087
W832	273	199	73	9	18	1.087
NY 81	274	186	68	13	19	1.090
W879	192	-	-	-	-	1.088
Chippewa	354	241	68	8	24	1.068

CHIP TRIALS TABLE 2. Tuber Data and Internal Disorder Ratings for Cultivars Grown at Wooster, Ohio - 1987.

	Tuber Data[z]					Internal Disorders[y]			
	Tuber Color	Skin Text.	Tuber Shape	Eye Depth	Overall Appear.	Hollow Heart	Internal Necrosis	Stem End Discolor	Vasc. Discolor
Atlantic	5	5	3	5	6	0	4	3	0
MS 700-70	-	-	-	-	-	1	2	0	0
MS 702-80	7	6	2	4	5	0	0	0	0
MS 700-83	6	6	3	6	7	0	1	0	0
Denali	6	6	5	4	3	1	2	2	0
Monona	7	7	3	4	4	0	0	0	0
BN 9803-1	6	7	3	7	7	0	1	0	1
W779	4	3	5	5	5	0	0	0	0
W848	7	6	6	7	5	0	0	2	0
LA01-38	7	6	3	6	6	0	0	0	0
Norchip	7	7	5	6	4	0	0	0	0
ND860-2	7	7	2	5	8	0	0	0	0
W832	7	6	4	6	6	0	0	0	0
NY 81	7	6	3	5	5	1	0	0	0
W879	7	6	3	5	2	0	0	0	0
Chippewa	7	7	3	4	3	0	0	0	0

[z] Tuber Data Rating System

Tuber Color
1. Purple 4. Dark brown 7. Buff
2. Red 5. Brown 8. White
3. Pink 6. Tan 9. Cream

Skin Texture
1. Part. russet 4. Light russet 7. Mod. smooth
2. Heavy russet 5. Netted 8. Smooth
3. Mod. russet 6. Slight net. 9. Very smooth

Tuber Shape
1. Round 4. Mostly obl. 7. Mostly long
2. Mostly round 5. Oblong 8. Long
3. Rd. to obl. 6. Obl. to long 9. Cylindrical

Eye Depth
1. VD 4. -- 7. S
2. -- 5. Intermediate 8. --
3. D 6. -- 9. VS

Appearance
1. Very poor 4. -- 7. Good
2. -- 5. Fair 8. --
3. Poor 6. -- 9. Excellent

[y] Hollow Heart, internal necrosis ratings and discoloration ratings indicate the number of affected tubers found per 30 large tubers sampled.

CHIP TRIALS TABLE 3. Percentage Plant Stand, Vines Dead 112 DAP, and Blister; Chip Color, Agtron (E5F-90), and External Tuber Defects Ratings for Cultivars Grown at Wooster, Ohio - 1987.

	Plant Stand %	% Vines Dead 112 DAP	External Tuber Defects				% Blister	Chip Color	Agtron E5F-90
			Growth Cracks	Second Growth	Sun Green	Total			
Atlantic	91	82	0.0	0.0	8.0	8.0	60[z]	1[y]	59.3
MS 700-70	91	65	0.0	5.0	2.7	7.7	40	1	56.0
MS 702-80	97	97	0.0	1.3	0.0	1.3	0	1	61.0
MS 700-83	71	93	8.0	0.0	2.7	10.7	10	1	63.0
Denali	80	73	4.0	4.0	5.0	13.0	20	1	59.0
Monona	79	88	6.7	0.0	1.3	8.0	40	1	61.0
BN 9803-1	98	99	0.0	0.0	12.0	12.0	0	1	57.0
W779	87	83	2.7	6.7	0.0	9.4	10	1.5	55.9
W848	94	73	0.0	0.0	2.7	2.7	30	1.5	64.0
LA01-38	91	78	0.0	0.0	0.0	0.0	20	1.5	55.0
Norchip	96	85	4.0	4.0	18.7	26.7	30	1	52.0
ND860-2	83	97	0.0	0.0	6.7	6.7	20	1	59.2
W832	97	92	1.3	0.0	14.7	16.0	0	1.5	57.0
NY 81	70	72	0.0	0.0	4.0	4.0	0	1.5	57.6
W879	84	75	0.0	0.0	1.3	1.3	60	1	64.4
Chippewa	88	83	0.0	2.7	21.3	24.0	20	1	61.0

[z] Percentage of chips which develop blisters greater than 20 mm in diameter during the frying process.

[y] PC/SFA designation

OBSERVATION TRIALS TABLE 1. Yield, Marketable Yield, Percent of Yield by Grade Distribution and Specific Gravity for Cultivars Grown at Wooster, Ohio - 1987.

Cultivar	Total Yield cwt/A	U.S. No.1 cwt/A	Percent U.S. No.1	B Size %	Culls %	Specific Gravity
WNC 672-2	257	-	-	-	-	1.065
Campbell 14	290	220	76	9	15	1.081
MS 702-91	230	-	-	-	-	1.060
MN 10874	249	-	-	-	-	1.064
WIS 80-26.86	133	-	-	-	-	1.081
WIS 81-38.26	198	-	-	-	-	1.082
WIS 1005	305	198	65	15	20	1.065
WIS 979	269	-	-	-	-	1.073
ND 1113-10 Rus	303	-	-	-	-	1.085
ND 1215-1	295	204	69	10	21	1.072
NDT 9-1068-11R	213	-	-	-	-	1.067
NY 71	228	-	-	-	-	1.074
WIS 855	264	214	81	10	9	1.082
WIS 971	278	-	-	-	-	1.065
D 191-2	247	192	78	10	12	1.070
D 195-11	109	-	-	-	-	1.075
NY 78	139	-	-	-	-	1.071
AF 465-2	213	-	-	-	-	1.074
CF 7523-1	407	265	65	10	25	1.079
AF 522-5	232	-	-	-	-	1.078
AF 7411-2	232	-	-	-	-	1.068
CS 7635-4	288	191	67	7	26	1.078
F 72090	327	-	-	-	-	1.078
AC 80545-1	257	-	-	-	-	1.071
BC 0038-1	165	-	-	-	-	1.068
AC 77101-1	211	-	-	-	-	1.060
AC 77226-13	131	-	-	-	-	1.073
AC 77226-10	118	-	-	-	-	1.077
CD 8011-5	213	-	-	-	-	1.076
Chippewa	303	230	76	8	16	1.065
A 75188-3	267	-	-	-	-	1.064
A 76147-2	208	-	-	-	-	1.066
NY 72	344	-	-	-	-	1.068
Kennebec	318	230	72	10	18	1.074

OBSERVATION TRIALS TABLE 2. Tuber Data and Internal Disorder Ratings for Cultivars Grown at Wooster, Ohio - 1987.

	Tuber Data[z]					Internal Disorders[y]			
	Tuber Color	Skin Text.	Tuber Shape	Eye Depth	Overall Appear.	Hollow Heart	Internal Necrosis	Stem End Discolor	Vasc. Discolor
WNC 672-2	4	5	2	6	6	1	5	0	0
Campbell 14	6	7	3	6	6	0	0	0	0
MS 702-91	7	5	3	6	7	0	4	1	0
MN 10874	5	4	6	7	5	0	0	0	0
WIS 80-26.86	7	5	6	7	2	0	0	0	0
WIS 81-38.26	5	3	5	6	5	0	0	0	0
WIS 1005	5	4	8	6	5	0	0	0	0
WIS 979	7	6	4	5	6	0	0	0	0
ND 1113-10 Rus	5	3	6	5	7	0	0	0	0
ND 1215-1	7	5	3	6	5	0	3	0	0
NDT 9-1068-11R	2	6	5	5	3	1	0	0	0
NY 71	6	5	3	6	6	0	0	0	0
WIS 855	7	4	2	4	5	0	0	2	0
WIS 971	6	5	4	5	6	0	0	1	0
D 191-2	2	6	2	6	7	0	0	0	0
D 195-11	6	7	2	5	2	0	0	0	0
NY 78	6	6	3	5	5	0	0	0	0
AF 465-2	4	5	3	5	3	0	0	0	0
CF 7523-1	7	6	4	3	3	0	0	0	0
AF 522-5	4	2	6	6	4	0	0	0	0
AF 7411-2	5	2	7	5	2	0	0	0	0
CS 7635-4	7	6	3	4	3	0	0	0	0
F 72090	6	7	2	5	5	0	0	0	0
AC 80545-1	5	5	5	5	2	0	0	0	0
BC 0038-1	7	7	5	5	6	0	0	0	0
AC 77101-1	5	4	4	5	6	0	0	0	0
AC 77226-13	5	3	5	7	5	0	0	0	0
AC 77226-10	-	-	-	-	-	0	0	0	0
CD 8011-5	5	3	4	5	5	0	0	0	0
Chippewa	8	7	3	4	3	0	0	0	0
A 75188-3	6	6	3	5	2	0	0	0	0
A 76147-2	4	2	7	5	2	0	0	0	0
NY 72	6	4	3	4	3	0	0	0	0
Kennebec	7	7	5	5	4	0	0	0	0

[z] Tuber Data Rating System

Tuber Color

1. Purple 2. Red 3. Pink 4. Dark brown 5. Brown 6. Tan 7. Buff 8. White 9. Cream

Skin Texture

1. Part. russet 2. Heavy russet 3. Mod. russet 4. Light russet 5. Netted 6. Slight net. 7. Mod. smooth 8. Smooth 9. Very smooth

Tuber Shape

1. Round 2. Mostly round 3. Rd. to obl. 4. Mostly obl. 5. Oblong 6. Obl. to long 7. Mostly long 8. Long 9. Cylindrical

Eye Depth

1. VD 2. -- 3. D 4. -- 5. Intermediate 6. -- 7. S 8. -- 9. VS

Appearance

1. Very poor 2. -- 3. Poor 4. -- 5. Fair 6. -- 7. Good 8. -- 9. Excellent

[y] Hollow Heart, internal necrosis ratings and discoloration ratings indicate the number of affected tubers found per 30 large tubers sampled.

OBSERVATION TRIALS TABLE 3. External Defects and Chipping Characteristics for Cultivars Grown at Wooster, Ohio - 1987.

	Plant Stand %	% Vines Dead 112 DAP	External Tuber Defects %						
			Growth Cracks	Second Growth	Sun Green	Total	% Blister	Chip Color	Agtron E5F-90
WNC 672-2	87	50	0	12	0	12	0	1	58.0
Campbell 14	93	65	4	0	8	12	0	1	57.0
MS 702-91	83	97	0	0	8	8	10	1	59.0
MN 10874	100	65	0	0	4	4	20	3	47.3
WIS 80-26.86	97	20	20	28	0	48	0	1	58.0
WIS 81-38.26	97	60	12	12	12	36	30	1	60.5
WIS 1005	97	45	0	4	16	20	70	1	61.1
WIS 979	90	85	0	8	12	20	20	1	62.7
ND 1113-10 Rus	83	97	0	4	0	4	-	-	-
ND 1215-1	87	50	4	12	8	24	50	3	52.7
NDT 9-1068-11R	47	75	0	0	4	4	40	2	61.3
NY 71	97	80	8	0	4	12	30	2	60.8
WIS 855	87	65	0	0	4	4	30	2	61.7
WIS 971	93	80	0	0	0	0	10	2	57.7
D 191-2	97	80	0	0	0	0	50	2	60.0
D 195-11	63	85	25	0	16	41	10	2	59.4
NY 78	80	70	0	0	8	8	20	2	56.3
AF 465-2	80	85	16	8	12	36	40	1	65.0
CF 7523-1	90	70	8	0	12	20	30	2	60.2
AF 522-5	83	100	16	8	4	28	0	3	44.6
AF 7411-2	80	60	12	8	0	20	40	1	65.2
CS 7635-4	93	60	4	4	12	20	20	2	57.3
F 72090	77	100	0	0	8	8	-	-	-
AC 80545-1	87	30	0	16	20	36	0	2	46.0
BC 0038-1	97	100	0	0	12	12	0	1	62.0
AC 77101-1	73	80	8	16	0	24	20	2	49.4
AC 77226-13	53	60	7	0	0	7	0	1	55.0
AC 77226-10	63	70	-	-	-	-	0	1	57.5
CO 8011-5	83	85	24	16	4	44	-	-	-
Chippewa	93	75	16	0	12	28	10	3	45.0
A 75188-3	-	-	8	16	12	36	0	1	56.0
A 76147-2	-	-	0	52	12	64	30	2	44.0
NY 72	-	-	0	8	12	20	0	1	60.0
Kennebec	88	40	0	28	12	40	20	2	59.3

1987 NORTH CENTRAL REGIONAL POTATO TRIALS

Location Wooster, OH **Soil Type** Wooster silt loam

Fertilizer Treatment 1200 lbs 10-20-20 **Date Planted** May 14, 1987

Date Harvested Sept. 21, 1987 **Size of Plots** single rows - 30 ft.

Spacing - Between Hills 12 inches **Spacing - Between Rows** 36 inches

Replications 30 hills/rep **Number of Replications** 3

Environmental Factors (rainfall, temperature, irrigations, etc.):

		Temperature (°F)	
	Rainfall (inches)	Average Minimum	Average Maximum
May	2.3	49	76
June	5.0	58	82
July	3.1	63	85
Aug	4.7	58	82
Sept	2.2	52	75

Sprays Applied:

1 application - Dithane M45 + Thiodan
3 applications - Dithane M45 + Pydrin
2 applications - Dithane M45 + Penncap
2 applications - Bravo 500 + Thiodan
1 application - Bravo 500

Other Data (vine killing, specific gravity, determinations, etc.):

Herbicide: Dual/Lexone
Vine Killing: Diquat + spreader (Sept. 4)

SUMMARY SHEET

Selection Number or Variety	Aver.[1/] Mat.	Most[2/] Representative Scab Area-Type	CWT/A Aver. Yield	CWT/A Aver. Yield US #1	Aver. Percent US #1	Ave.[3/] Total Solids	Gen.[4/] Merit Rating	Chip[5/] Color	Early[6/] Blight Reading	Comments and General Notes
EARLY										
Norland	1	0	373	269	72	11.04		2	good red color, uniform	
ND651-9	1	0	321	212	66	13.03	5	2	shape could be prob; sl. sprout	
W832	3	0	308	202	66	14.22	3	2	enl. lentic.; sh. eyes, gd app	
BN9803-1	2	0	284	155	54	15.61		2	deep apical end; poor appear.	
NEA219.70-3	2	3-1	293	205	70	11.63		3	apical end too deep; sl. scab	
MEDIUM TO LATE										
MS700-70	4	0	386	276	72	14.42	1	2	good appearance - promising	
MS700-83	2	T-1	392	264	67	13.82	2	2	general appearance good	
MS716-15	3	0	329	259	79	15.67		1	good appearance - promising	
MN12331	2	0	309	209	68	11.63		2	eyes shallow; 2nd growth	
MN12567	3	0	359	227	63	13.82		2	shape; 2nd growth prob; pr app	
MN12945	1	0	271	202	74	10.44		2	good red color	
NE A71.72-1	3	0	242	97	40	13.03		2	poor shape; med, russet; dbtfl	
ND671-4Russ	3	0	291	177	61	11.83		2	promising russet	
NDT-9-1068-11R	2	0	317	219	69	11.83	4	3	lg red; sh. eyes; promising	
W848	3	0	282	177	63	12.63		2	poor appearance; deep eyes	
W921	3	0	242	242	100	14.42		3	deep eyes; poor appearance	
Red Pontiac	3	0	421	239	57	10.24		4	deep eyes; lg tubers; med. red	
Norgold Russet (Super)	1	0	412	267	65	11.43		4	moderate russet	
Norchip	3	0	436	311	71	13.82		2	rough appearance	

1/ 1 - Very early-Norland maturity; 2-Early-Irish Cobbler maturity; 3-Medium-Red Pontiac maturity; 4-Late-Katahdin maturity; 5-Very Late-Kennebec or Russet Burbank maturity

2/ Area - T-less than 1%; 1 - 10-20%; 2 - 21-40%; 3 - 41-60%; 4 - 61-80%; 5 - 81-100%. TYPE - 1. Small, superficial; 2. Larger, superficial; 3. Larger, rough pustules; 4. Larger pustules, shallow holes; 5. Very large pustules, deep holes.

3/ Not total solids/acre

4/ Place top five among all entries including check varieties; disregard maturity classification. (Rate first, second, third, fourth and fifth (in order) for overall worth as a variety).

5/ Chip Color - PCII Color Chart or Agtron.

6/ Early Blight - 1 susceptible; 5-highly resistant.

Percent External Defects (1) SUMMARY OF GRADE DEFECTS Percent Internal Defects (2)

Selection Number or Variety	Scab (3)	Growth Cracks	Second Growth	Sun Green	Total (4) Tubers Free of External Defects	Hollow Heart	Internal Necrosis	Vascular Discoloration	Normal Tubers (5)
EARLY									
Norland	0	0	0	0	100	0	0	0	100
ND651-9	0	0	0	8	92	0	0	0	100
W832	0	0	12	8	80	0	0	0	100
BN9803-1	0	0	0	4	96	0	0	3	97
NEA219.70-3	1	1	0	11	88	0	4	0	96
MEDIUM TO LATE									
MS700-70	0	0	0	8	92	0	3	0	97
MS700-83	1	0	0	4	96	0	4	0	96
MS716-15	0	0	0	3	97	0	0	1	99
MN12331	0	0	12	1	87	0	2	0	98
MN12567	0	0	7	9	84	0	0	1	99
MN12945	0	0	0	0	100	1	0	0	99
NE A71.72-1	0	0	4	0	96	0	7	5	88
ND671-4Russ	0	0	7	0	93	1	1	0	98
NDT-9-1068-11R	0	0	0	0	100	0	0	0	100
W848	0	3	3	8	86	0	0	0	100
W921	0	0	1	11	88	0	0	0	100
Red Pontiac	0	4	12	0	84	0	0	0	100
Norgold Russet (Super)	0	0	11	0	89	1	0	0	99
Norchip	0	3	12	14	71	0	0	0	100

(1) Based on four 25 tuber samples (one from each replication). Percentage based on number of tubers.

(2) Based on four 25 tuber samples (one from each replication). Percentage based on number of tubers.

(3) Includes all tubers with scab lesions whether merely surface, pitted or otherwise and regardless of area. Be sure to count tubers with any amount of scab in this category.

(4) This total - tubers free from any external defect of any sort.

(5) Percentage normal tubers are those showing no internal defects. Some individual tubers will have more than one type of internal defect.

NORTHEASTERN REGIONAL TRIAL

INTRODUCTION

Twenty-five varieties and clones were tested at the Ohio Agricultural Research and Development Center, Wooster, Ohio during the 1987 growing season. This test was conducted as part of the NE107 Regional Project (Breeding and Evaluation of Potato Clones for Northeast).

METHODS

Single row plots 30 feet long (3 ft. apart and 12 in. between seed pieces) were planted on May 14 using a randomized complete block design and three replications. Fertilization consisted of 1200 lbs/A 10-20-20, one-half applied as a plow down application and the remainder banded at planting. The herbicides used were Dual/Lexone, with other cultural practices also similar to those used on commercial operations in Ohio. Vines were killed at 113 days with Diquat + spreader. Specific gravity was determined using the potato hydrometer method. Chip color was evaluated using the standards established by the Potato Chip/Snack Food Association. Objective color determinations were made with the Agtron E-5F and Agtron M-30A. Hollow heart and internal necrosis ratings indicate the number of affected tubers found per 30 large tubers examined.

RESULTS

Weather conditions during 1987 were considerably warmer than normal resulting in better than usual plant stands and early maturation for many cultivars. Rainfall in May and July was 40% below normal. These two factors influenced yields, which were only fair. However, tuber quality was good at this location. No unusual disease or insect problems were detected during the season within the test, six varieties/clones produced marketable yields equal to Katahdin (Ohio Table 1). These varieties were Atlantic, Kennebec, Sunrise, AF236-1, AF909-8 and NY 76.

Among the varieties with high marketable yields, Sunrise, AF236-1 and NY 76 also exhibited very good tuber appearance and no indication of hollow heart or internal necrosis.

Ohio Table 1. Yield, marketable yield, percentage of yield by grade size distribution and specific gravity for varieties grown at Wooster, Ohio - 1987.

Variety	Total Yield cwt/A	Marketable Yield cwt/A	Marketable Yield percentage of std.	Size Distribution by Class (% of total yield) U.S. No. 1 (over 1-7/8")	B size	Culls	Spec. Gravity
Atlantic	314	216	111	69	10	21	1.083
Chippewa	281	193	99	69	9	22	1.080
Donna	336	114	58	34	8	58	1.085
Katahdin (std)	291	195	100	67	17	16	1.077
Kennebec	336	204	105	61	13	26	1.079
NemaRus	213	120	62	56	16	28	1.081
Norchip	361	152	78	42	15	43	1.085
Russet Burbank	264	129	66	49	17	34	1.080
Sunrise	323	233	119	72	9	19	1.090
Superior	202	148	76	73	7	20	1.079
A72685-2	261	140	72	54	19	27	1.090
A75188-3	250	82	42	33	31	36	1.087
AF236-1	302	208	107	69	9	22	1.065
AF522-5	225	120	62	53	19	28	1.089
AF686-3	230	142	73	62	16	22	1.074
AF909-8	308	216	111	70	10	20	1.075
CS7635-4	242	160	82	66	9	25	1.075
CS7639-1	282	144	74	51	11	38	1.075
CS7697-24	292	193	99	66	11	23	1.082
F70021	293	147	75	51	12	37	1.072
NY76	338	225	115	67	18	15	1.080
NY79	319	189	97	60	8	32	1.084
NY81	252	169	87	67	13	20	1.079
W752	267	180	92	67	15	18	1.090
WF591-1R	249	142	73	57	10	33	1.085
Waller Duncan LSD (K=100)	61	49					

Ohio Table 2. Plant size, maturity at vinekill, tuber shape, tuber defects, hollow heart ratings, internal necrosis ratings, and chip color for varieties grown at Wooster, Ohio - 1987.

Variety	Plant Data	Tuber Data		Tuber Defects (%)				Hollow Heart Rating	Internal Necrosis	Chip Color[1]
	Matur. at Vinekill	Shape	Appear-ance	Total	Sun burn	Mis-shapen	Growth Cracks			
Atlantic	2	2[z]	5	3.8	2.5	0.0	1.3	4	8	2
Chippewa	2	3	3	17.2	9.3	6.6	1.3	0	0	2
Donna	1	6	3	16.0	12.0	2.7	1.3	0	4	3
Katahdin	5	3	7	12.1	6.7	2.7	2.7	0	0	2
Kennebec	4	5	4	16.0	8.0	8.0	0.0	0	0	3
NemaRus	1	6	8	0.0	0.0	0.0	0.0	1	0	2
Norchip	3	4	3	0.0	0.0	0.0	0.0	0	2	2
Russet Burbank	3	7	2	24.0	0.0	24.0	0.0	0	0	3
Sunrise	1	6	7	1.3	1.3	0.0	0.0	0	0	2
Superior	1	3	5	5.3	5.3	0.0	0.0	0	0	2
A72685-2	4	5	8	0.0	0.0	0.0	0.0	0	0	3
A75188-3	5	6	3	8.0	0.0	8.0	0.0	0	0	2
AF236-1	3	6	8	6.7	6.7	0.0	0.0	0	0	1
AF522-5	1	4	5	21.3	0.0	5.3	16.0	0	3	2
AF686-3	1	3	7	1.3	1.3	0.0	0.0	0	0	2
AF909-8	2	5	5	9.3	8.0	0.0	1.3	0	0	2
CS7635-4	2	3	5	14.7	4.0	4.0	6.7	1	1	3
CS7639-1	1	5	5	13.2	6.7	2.5	4.0	0	0	3
CS7697-24	1	3	3	13.3	9.3	0.0	4.0	1	0	2
F70021	1	5	5	13.4	6.7	4.0	2.7	0	0	3
NY76	2	3	8	2.7	2.7	0.0	0.0	0	0	2
NY79	1	3	5	6.7	4.0	0.0	2.7	3	0	2
NY81	3	2	5	6.7	6.7	0.0	0.0	0	0	2
W752	2	3	5	9.3	8.0	1.3	0.0	0	0	2
WF591-1R	1	4	6	5.3	2.7	1.3	1.3	0	0	3

[1] PC/SFA Standards

[z] Shape: 1- round, 2- mostly round, 3- round to oblong, 4- mostly oblong, 5- oblong, 6- oblong to long, 7- mostly long, 8- long, 9- cylindrical

Ohio Table 3. Plant stand, percent blister and Agtron readings for varieties grown at Wooster, Ohio - 1987.

Variety	Plant Stand (%)	% Blister[1]	Tuber Data			
			Agtron E-5F	Skin Texture	Eye Depth	Color
Atlantic	87	10	52.2	5	5	6
Chippewa	96	30	55.1	7	4	8
Donna	82	10	49.5	7	4	7
Katahdin	92	40	56.0	8	6	6
Kennebec	90	30	52.0	7	4	7
NemaRus	83	20	54.0	3	6	4
Norchip	89	40	58.2	7	4	7
Russet Burbank	91	50	47.7	2	5	4
Sunrise	84	40	56.1	6	6	7
Superior	90	40	55.3	6	5	7
A72685-2	86	80	45.0	3	6	4
A75188-3	92	20	58.6	6	5	7
AF236-1	83	90	66.0	8	8	7
AF522-5	80	25	53.0	3	6	4
AF686-3	84	10	58.6	4	4	7
AF909-8	76	60	55.9	7	5	6
CS7635-4	82	0	50.5	6	6	7
CS7639-1	78	3	53.7	5	5	7
CS7697-24	87	60	58.0	6	5	7
F70021	83	50	50.0	7	6	6
NY76	84	80	55.7	6	6	7
NY79	90	20	58.2	6	5	7
NY81	81	30	55.0	5	5	7
W752	77	0	57.7	7	6	7
WF591-1R	91	10	51.0	4	4	7

[1]Percentage of chips which develop blisters greater than 20 mm in diameter during the frying process.

LOCATIONS OF 1987 OHIO POTATO VARIETY TRIALS

1987 Trial Locations

1 - Campbell Institute for Research and Technology, Napoleon
2 - Harold Thompson Farm, Hanoverton
3 - Mellinger Farms, Leetonia
4 - Logan Farms, Mt. Gilead
5 - Chase Farms, Defiance
6 - Celeryville Muck Crops Brnch, Celeryville
7 - Ohio Agricultural Research and Development Center, Wooster
8 - Michael Farms, Urbana

APPENDIX A. Summary of reported general merit ratings for varieties in the 1987 North Central Regional Potato Trials.

	General Merit Ratings[z]													Total		
Variety	IN	MN	KY	IA	OH	MI	NE	ND	SD	WI	Manitoba	Alberta	Ontario	n	pts	Avg. Rating
Norland											1			1	1	1
ND651-9					5							3		2	8	4
W832			3	4	3					2				4	12	3
BN9803-1		4		5						4				3	13	4.3
NEA219.70-3														–	–	–
MS700-70			4		1		1		2		5			5	13	2.6
MS700-83					2	1	2		4	3				5	12	2.4
MS716-15	1		2	2		2				1	4	2		7	14	2
MN12331														–	–	–
MN12567		1	1			4		3	1					5	10	2
MN12945								4				5		2	9	4.5
NEA71.72-1														–	–	–
ND671-4 Russ		2	5			3		2				1		5	13	2.6
NDT-9-1068-11R	4	5		1	4			1	3	5				7	23	3.3
W848	2	3					5					4		4	14	3.5
W921	5													1	5	5
Red Pontiac							4				3			2	7	3.5
Norgold (super) Russet						5	3	5			2			4	15	3.75
Norchip	3			3					5					3	11	3.66

[z]Place top five among all entries including check varieties, disregard maturity classification. [Rate first, second, third, fourth and fifth (in order) for overall worth as a variety.]

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