



SUMMARY of VEGETABLE VARIETY TRIALS FAIRBANKS, ALASKA 1981

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TABLE OF CONTENTS

	Page
Introduction	1
Table 1: Climatic Data for the Fairbanks Growing Season: 1980, 1981, and the Long-Term Average	2
Table 2: Broccoli Variety Trials, Upland, 1981	3
Table 3: Brussels Sprouts Variety Trials, Upland, 1981	4
Table 4: Cabbage Variety Trials, Upland, 1981	5
Table 5: Carrot Variety Trials, Bottomland, 1981	6
Table 6: Cauliflower Variety Trials, Upland, 1981	7
Table 7: Celery Variety Trials, Upland, 1981	8
Table 8: Cucumber Variety Trials, Upland, 1981	9
Table 9: Green Pea Variety Trials, Bottomland, 1981	10
Table 10: Lettuce Variety Trials, Bottomland, 1981	11
Table 11: Pepper Variety Trials, Upland, 1981	12
Table 12: Potato Variety Trials, Bottomland Silt, 1981	13
Table 13: Potato Variety Trials, Bottomland Peat, 1981	14
Table 14: Pumpkin Variety Trials, Upland, 1981	15
Table 15: Summer Squash Variety Trials, Upland, 1981	16
Table 16: Winter Squash Variety Trials, Upland, 1981	17
Table 17: Sweet Corn Variety Trials, Upland, 1981	18
Table 18: Tomato Variety Trials, Upland, 1981	19
Miscellaneous Vegetables Tested	20
Seed Sources	23

SUMMARY OF VEGETABLE VARIETY TRIALS FAIRBANKS, ALASKA, 1981

Introduction

This report summarizes the vegetable variety evaluations of the Horticulture Department of the University of Alaska, Fairbanks, 1981. Variety trials were all conducted at the Agricultural Experiment Station's research farm at Fairbanks.

The objective of this research is to select varieties of vegetables that are adapted to this environment. It also identifies types whose adaptability may be improved through development of improved cultural techniques. The selection effort is directed at finding varieties useful to both the commercial growers and home gardeners.

Varieties are chosen for inclusion in the variety tests on the basis of their description, their latitude of origin, and the record of the plant-breeding program for producing kinds that have previously been found adapted. Standard recommended varieties are included in the trials for comparison.

The vegetable variety evaluation program has been responsible for a continuous improvement in yields, quality, and dependability for many vegetable crops. Our philosophy is to depend upon the many existing plant-breeding programs instead of investing in an expensive, on-site plant-breeding effort. Progress can be made more rapidly by variety selection at this time.

Climatic data in Table 1 show that the 1981 growing season at Fairbanks was much cooler than the 35-year average mean temperature. Growth and maturity of crops were normal or better until the end of June but were noticeably delayed the remainder of the season. Very hard frosts occurred on August 17 and 18 which caused a much shorter than normal growing season. As a consequence of this cool short season, fewer warm-season crops matured than in any of the previous thirteen growing seasons.

Rainfall at Fairbanks was considerably above normal but irrigation was used on all crops in the Fairbanks trials.

Soil temperatures were slightly above normal until the end of June but were well below normal for the remainder of the growing season. As usual, crop growth was greatly improved where the soil temperature was raised through the use of clear polyethylene mulches or other methods.

The following tables show our results — including yields, maturity dates, and other useful characteristics and observations.

Table 1. Climatic Data for the Fairbanks Growing Season: 1980, 1981,
and the Long-Term Average.

	Average Temperature (°F)			Precip. (in.)
	daily max.	daily min.	daily mean	
	----- May -----			
1981	67.4	38.7	53.1	0.40
1980	65.2	35.6	50.4	0.11
35-year average	60.4	33.7	47.0	0.79
	----- June -----			
1981	69.5	42.3	56.1	2.44
1980	69.1	49.1	56.6	2.26
35-year average	71.6	44.0	57.8	1.51
	----- July -----			
1981	66.1	46.4	56.1	4.15
1980	72.9	47.9	60.4	3.35
35-year average	72.5	46.8	59.7	2.16
	----- August -----			
1981	66.6	40.5	53.5	1.30
1980	65.6	40.4	53.0	2.00
35-year average	67.3	42.9	55.2	2.41
	----- September -----			
1981	52.7	33.7	43.2	1.10
1980	52.4	29.6	41.0	0.93
35-year average	55.3	33.6	44.5	1.35

Table 2. Broccoli Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Terminal \bar{x} wt (g)	Yield (lbs/100')		Comments
			plant	row			terminals	Laterals	
4626	Emperor	NK	15"	3'	7-22	546.8	96.4	42.3	consistent high yields, large heads
4980	Southern Comet	Ag	15"	3'	7-21	475.3	83.8	16.6	consistent producer
4240	Green Hornet	St	15"	3'	7-21	466.3	82.2	25.5	good quality
1765	Green Umbrella	D	15"	3'	7-24	419.1	73.9	23.3	inconsistent
5262	Green Duke	NK	15"	3'	7-13	360.0	63.5	25.0	nice, large heads
4241	Green Dwarf	St	15"	3'	7-22	350.4	61.8	13.9	nice, compact heads, large laterals
5183	Premium Crop	St	15"	3'	7-24	347.5	61.3	23.6	
3792	Coaster	RS	15"	3'	7-24	308.0	54.3	18.4	consistent high yields
3793	Clipper	RS	15"	3'	7-22	300.0	52.9	18.2	consistent high yields
5182	Bravo	St	15"	3'	7-17	292.9	51.7	23.1	
1856	Dandy No. 5	Sa	15"	3'	7-24	204.0	42.3	19.8	
5076	Cape Queen	J	15"	3'	7-17	228.9	40.4	25.0	
3791	Corvet	RS	15"	3'	7-27	209.0	36.9	29.3	
4979	Early One	Ag	15"	3'	7-13	208.6	36.8	22.2	
4824	Green Goliath	Bu	15"	3'	7-21	189.2	33.4	26.6	
4783	Green Delight	G	15"	3'	7-21	187.5	33.1	33.4	
4889	Kayak	G	15"	3'	7-24	129.3	22.8	23.0	

^aSee seed source list.

Note: Greenhouse-grown plants, 29 days old, were transplanted into the field May 26, 1981. Fertilizer application was 1830 lb/A 10-20-20 prior to rototilling.

Table 3. Brussels Sprouts Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Comments
			plant	row				
4549	Goldmine	U	2'	3'	9-14	1188.3	131.0	large sprouts
5096	Jade Cross	Tw	2'	3'	9-14	1034.2	114.0	consistent high yields
4424	Earli-Jade	A & C	2'	3'	9-14	983.0	108.4	consistent high yields
3205	Green Gem	K	2'	3'	9-14	839.2	92.5	
4782	Cpt. Marvel No. 8	G	2'	3'	9-14	792.5	87.4	
5348	Stiekema No. 1	WD	2'	3'	9-14	560.0	61.7	variable
5077	Early Dwarf Danish	J	2'	3'				bolted, sprouts rotted

^aSee seed source list.

Note: Greenhouse-grown plants, 57 days old, were transplanted into the field May 26, 1981. Fertilizer application was 1830 lb/A 10-20-20 prior to rototilling.

Table 4. Cabbage Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Av. Core Length Rating ^b	Av. Density Rating ^c	Comments
			plant	row						
4511	Hinova	Se	15"	3'	8-31	2602.9	459.1	3.5	3.2	storage type, nice, dense, large ribs
6467	Alaska 6467	AK	15"	3'	8-19	2536.1	447.3	2.3	3.7	storage type, good flavor
5097	Prizemaker	Tw	15"	3'	7-27	2534.2	446.9	2.9	3.6	good, sweet flavor
2187	Erin	Al	15"	3'	8-5	2406.7	424.5	1.9	1.3	excellent flavor, consistent yields
5555	No. 1338	Ka	15"	3'	8-17	2306.2	406.7	1.9	4.4	storage type, good flavor, dense
4512	Predena	Se	15"	3'	8-21	2263.6	399.2	2.5	1.6	
1569	Savoy Ace	Hb	15"	3'	8-3	2158.2	380.6	2.6	2.9	savoy
5554	No. 1342	Ka	15"	3'	8-5	1920.7	338.7	2.3	4.7	storage type, dense, poor flavor
5185	Canada Kraut	St	15"	3'	7-29	1882.5	332.0	2.7	2.5	
4243	Quick Grn Storage	St	15"	3'	8-31	1825.0	321.9	3.2	3.5	
5378	Tuffy No. 15	Hb	15"	3'	7-29	1816.1	320.3	3.3	2.0	
4649	June Star	Su	15"	3'	7-24	1551.0	273.5	3.0		1.8
5350	Red Landedijker	WD	15"	3'	7-31	1539.5	271.5	3.0	1.8	
3241	Ruby Ball	G	15"	3'	7-29	1472.5	259.7	2.6	2.6	red
5264	Tastie	NK	15"	3'	7-13	1407.5	248.2	2.1	3.1	early, nice dense head
4317	Ruby Perfection	Tw	15"	3'	8-19	1407.3	248.2	2.7	4.2	red
5349	Kappertjes	WD	15"	3'	7-24	1187.2	209.4	2.0	2.1	savoy
4667	Hispi	Su	15"	3'	7-13	1053.3	185.8	2.5	1.6	pointed type
4648	May Star	Su	15"	3'	7-17	1046.7	184.6	2.3	3.4	
4988	Dakri	P	15"	3'	7-13	998.0	176.0	2.4	1.7	
5186	Early Greenball	St	15"	3'	7-13	872.3	153.9	2.8	1.5	
5440	Pride of the Market	E	15"	3'	7-13	828.2	146.1	2.6	1.9	
4043	Earliana	Bu	15"	3'	7-13	716.0	126.3	2.0	1.6	

^aSee seed source list.

^bCore length is noted from 1 to 5, with 1 the shortest, most desirable, and 5 the longest.

^cDensity is noted from 1 to 5, with 1 the least dense and 5 the most dense and most desirable.

Note: Greenhouse-grown plants, 29 days old, were transplanted into the field May 26, 1981. Fertilizer application was 1830 lb/A 10-20-20 prior to rototilling.

Table 5. Carrot Variety Trials, Bottomland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing ^b Row	First Harvest	Yield (gm/plot)	Yield (lb/100')	Average wt. (gm)	Comments
5188	Orange Sherbet	St	2'	9-21	6845	150.9	56.6	slightly tough
5078	Kuroda	J	2'	9-21	6690	147.5	65.6	sweet, tender, tendency to bolt, chantenay type
5399	Dexp 80-138-3	D	2'	9-21	6385	140.8	59.1	
4247	Sp. Lg. Type Nantes	St	2'	9-21	6040	133.2	45.8	excellent flavor, stores well
5396	Dexp 80-138-2	D	2'	9-21	5960	131.4	55.7	
5268	Gold King	NK	2'	9-21	5780	127.4	52.5	nice flavor
5458	Early Cross	Al	2'	9-21	5730	126.3	69.0	excellent flavor
1880	Spartan Bonus	St	2'	9-21	5625	124.0	41.4	attractive carrot
5907	Nantes Coreless	L	2'	9-21	4950	109.1	41.3	
5398	Dexp 80-140-3	D	2'	9-21	4660	102.7	62.1	
5267	Scarlet Nantes	H	2'	9-21	4535	100.0	51.0	excellent flavor
5396	Dexp 80-140-2	D	2'	9-21	4410	97.2	53.8	
4991	Nandor	P	2'	9-21	4395	96.9	56.3	good flavor
5178	Coreless Amsterdam	St	2'	9-21	3455	76.2	60.6	
5328	Bunny Bite	Se	2'	9-21	2565	56.5	21.9	
4663	Regulus Imperial	Su	2'	9-21	2180	48.1	39.6	poor color

^aSee seed source list.

^bCarrots were planted using a Planet Junior seeder, hole No. 8, and were not thinned.

Note: Carrots were seeded June 5, 1981. Fertilizer application was 1200 lb/A 10-20-20 prior to rototilling.

Table 6. Cauliflower Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
5478	Imperial 10-6	T&T	15"	3'	8-7	1122.7	198.0	1122.7	nice large heads, good quality
4255	Dominant	St	15"	3'	8-10	1056.8	186.4	1056.8	
4339	Dwarf Erfurt	WD	15"	3'	7-27	892.5	157.4	892.5	nice large heads, consistent high yields
5190	White Summer	St	15"	3'	8-3	883.5	155.8	883.5	
4636	Alpha Pioneer	ARZ	15"	3'	8-5	864.7	152.5	864.7	good quality
5257	Early White	J	15"	3'	7-21	833.8	147.1	833.8	good quality, large wrapper leaves
3493	Starlight	A&C	15"	3'	7-31	790.0	139.3	790.0	
5191	Delira	St	15"	3'	8-3	788.8	139.1	788.8	poor quality, fuzzy curds
4976	Snow Crown	G	15"	3'	7-22	676.4	119.3	676.4	
4780	Panda	G	15"	3'	7-21	660.0	116.4	660.0	good quality, early
5269	Early Snowball	NK	15"	3'	8-10	642.9	113.4	642.9	
4558	Self Wrap	T&M	15"	3'	7-27	619.2	109.2	619.2	good quality
5297	Super Snowball	NK	15"	3'	7-22	576.2	101.6	576.2	
4638	Alpha Maveron	ARZ	15"	3'	7-21	569.7	100.5	569.7	very nice tight head
4982	Snowball 34	Ag	15"	3'	7-22	535.5	94.4	535.5	
5238	Danova	U	15"	3'	7-29	527.8	93.1	527.8	good quality, large wrapper leaves
4637	Alpha Balanza	ARZ	15"	3'	7-22	511.3	90.2	511.3	
5441	Wallaby	E	15"	3'	7-22	503.5	88.8	503.5	good quality
4639	Hormade	ARZ	15"	3'	7-27	488.8	86.2	488.8	
5079	White Empress	J	15"	3'	7-23	388.1	68.4	388.1	poor quality, tendency to bolt
5080	Stovepipe	J	15"	3'	7-13	332.1	58.6	332.1	

^a See seed source list.

Note: Greenhouse-grown plants, 29 days old, were transplanted into the field May 26, 1981. Fertilizer application was 1830 lb/A 10-20-20 prior to rototilling.

Table 7. Celery Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Comments
			plant	row				
5082	Green Giant	J	12"	18"	9-9	1623.0	357.8	good flavor
3802	Transgreen	FM	12"	18"	9-9	1481.0	326.5	excellent flavor
5270	Utah 52-70	NK	12"	18"	9-9	1324.5	292.0	excellent flavor
5192	Stokes Impr. Utah 52-70	St	12"	18"	9-9	1313.5	289.6	excellent flavor
4502	Fordhook Giant	Bu	12"	18"	9-9	1244.5	274.4	excellent flavor
4550	Am. Gr. Greensnap	U	12"	18"	9-9	1170.6	258.1	excellent flavor

^aSee seed source list.

Note: Greenhouse started plants, 77 days old, were transplanted into the field on June 2, 1981. Fertilizer application was ca 1800 lb/A prior to rototilling. Crop was side dressed with 10-20-20 on 1 July 81 and 22 July 81.

Table 8. Cucumber Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
4974	Streamliner	Bu	3'	5'	8-14	1030.0	77.2	171.7	
4768	Saladin	P	3'	5'	8-7	710.0	53.2	101.4	
5196	Country Fair	St	3'	5'	9-31	435.0	32.6	108.8	
5450	Calypso	S	3'	5'	8-3	335.0	25.1	111.7	
5479	Perfecto Verde	T&T	3'	5'	8-24	110.0	8.2	110.0	
4376	Supercuke	J&P	3'	5'	8-14	67.5	5.1	45.0	
5195	Dasher	St	3'	5'	none				

^aSee seed source list.

Note: Greenhouse started plants, 30 days old, were transplanted in the field on June 4, 1981. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling. The wet, cool season and early frost damage resulted in very poor yields.

Table 9. Green Pea Variety Trials, Bottomland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Block Size	First Harvest	Yield (in shell) ^b	Comments
5175	Novella	St	10' x 12'	8-14	56.0	new nearly leafless variety
2191	Sparkle	HS	10' x 12'	8-14	21.9	
3466	Giant Stride	B	10' x 12'	none		rotted on vine due to wet weather
5326	Blue Bantam	Bu	10' x 12'	none		rotted on vine due to wet weather
4040	Green Arrow	Bu	10' x 12'	none		rotted on vine due to wet weather

^aSee seed source list.

^bYield in lbs. per 100 sq. ft. (bulk planting).

Note: Peas were seeded in bottomland plots May 21, 1981. The fertilizer application was 1145 lb/A 10-20-20.

Table 10. Lettuce Variety Trials, Bottomland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Av. Core Length Rating ^b	Av. Density Rating ^c	Comments
			plant	row						
5357	Premier Gt. Lakes ¹	WD	1'	3'	8-17	770.0	169.8	1.0	2.5	slight bitterness
1772	Dark Green Cos ²	D	1'	3'	8-17	727.9	160.5			very good flavor, sweet, best Cos
5448	Tete de Glace ¹	E	1'	3'	8-17	580.0	127.9	0.5	1.0	very mild
2022	Ithaca ¹	H	1'	3'	8-17	499.0	110.0	0.6	3.0	good flavor
5197	Ostinata ³	St	1'	3'	8-17	430.0	94.8			good flavor
5459	Hanson ¹	Al	1'	3'	8-17	414.0	91.3	1.2	3.2	
3471	Kagran Summer ³	J	1'	3'	8-17	387.9	85.5			good buttery flavor
5444	Merveille des Quatre Saisons ³	E	1'	3'	8-17	355.0	78.3			very attractive, good flavor
5243	Hilde II ³	U	1'	3'	8-17	330.6	72.9			tip burn, tough, mild flavor
4977	Irma ³	U	1'	3'	8-17	329.2	72.6			slight tip burn, mild buttery flavor
5445	Zommerkoning ³	E	1'	3'	8-17	284.2	62.6			tip burn, buttery with bitter aftertaste
4993	Augusta ³	P	1'	3'	8-17	234.2	51.6			slight tip burn, good flavor

^aSee seed sources list.

^bCore length is noted from 1 to 5 with 1 the shortest, most desirable, and 5 the longest.

^cDensity is noted from 1 to 5 with 1 the least dense and 5 the most dense and most desirable.

Note: Lettuce was seeded June 5, 1981. Fertilizer application was 1200 lb/A 10-20-20.

1 = Crisp head type; 2 = Cos type; 3 = Butter head type.

Table 11. Pepper Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
3920	Early Prolific	G	18"	18"	8-14	91.0	26.7	56.9	consistent high yields
4350	Gypsy	AAS	18"	18"	8-7	65.0	19.1	48.8	
5277	Hungarian Yellow Wax	NK	18"	18"	8-5	18.3	5.4	15.7	hot pepper
4274	Earliest Red Sweet	St	18"	18"	8-14	15.0	4.4	45.0	
5494	Italian Sweet	Gr	18"	18"	none				
5118	Golden Bell	Tw	18"	18"	none				
5482	King of the North	T&T	18"	18"	none				
1987	New Ace	Bu	18"	18"	none				
1825	Cadice	S&G	18"	18"	none				

^aSee seed source list.

Note: Greenhouse-grown plants, 66 days old, were transplanted into the field June 5, 1981. Plants were grown through 1.5-mil clear polyethylene. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling.

Table 12. Potato Variety Trials, Bottomland Silt, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
237	Alaska 114 + ^b	AK	1'	3.3'	9-3	1071.6	236.3	156.7	good quality
	10-1	CD	1'	3.3'	9-3	992.3	218.8	213.4	
249	Norgold Russet	P&S	1'	3.3'	9-3	924.2	203.7	203.1	nice potato, tendency to shattercrack
233	Alaska Red	CD	1'	3.3'	9-3	895.9	197.5	143.3	
248	Alaska 114	AK	1'	3.3'	9-3	892.1	196.7	157.4	poor quality, deep eyes
	Red Lasoda	P&S	1'	3.3'	9-3	884.5	195.0	164.6	
236	21-6	CD	1'	3.3'	9-3	873.2	192.5	164.8	high quality, good baking potato
	Bakeking	AK	1'	3.3'	9-3	810.8	178.8	162.2	
239	87-8	CD	1'	3.3'	9-3	771.1	170.0	159.8	good quality, best if harvested early
235	2-5	CD	1'	3.3'	9-3	759.8	167.5	133.3	
227	Green Mountain	AK	1'	3.3'	9-3	759.8	167.5	169.8	excellent early red, yellow flesh
	83-13	CD	1'	3.3'	9-3	742.8	163.8	156.4	
243	8-13	CD	1'	3.3'	9-3	703.1	155.0	152.0	peanut type, yellow flesh, good quality
234	Denali	CD	1'	3.3'	9-3	669.1	147.5	168.3	
	Kennebec	AK	1'	3.3'	9-3	669.1	147.5	196.8	
241	Allagash	CD	1'	3.3'	9-3	669.1	147.5	144.7	peanut type, yellow flesh, good quality
242	14-1	CD	1'	3.3'	9-3	646.4	142.5	173.5	
	Rote Erstling	AK	1'	3.3'	9-3	612.4	135.0	157.0	
228	Snowchip	CD	1'	3.3'	9-3	595.4	131.2	145.2	peanut type, yellow flesh, good quality
231	24-3	CD	1'	3.3'	9-3	555.7	122.5	122.8	
244	82-11	CD	1'	3.3'	9-3	493.3	108.8	121.1	peanut type, yellow flesh, good quality
	Swedish	AK	1'	3.3'	9-3	323.2	71.2	93.0	

^aSee seed sources list.

^bAlaska 114+ was fertilized with 1550 lb/A 10-20-20.

Note: Potatoes were planted May 20, 1981 in bottomland soils at Fairbanks. Fertilizer application was 1145 lb/A 10-20-20 prior to rototilling.

Table 13. Potato Variety Trials, Bottomland Peat, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
	Bakeking	AK	1'	3.3'	9-3	1162.4	256.3	186.7	high quality, good baking potato
227	83-13	CD	1'	3.3'	9-3	1134.0	250.0	162.0	
248	Red Lasoda	P&S	1'	3.3'	9-3	1066.0	235.0	160.9	poor quality, deep eyes
	Kennebec	AK	1'	3.3'	9-3	1060.3	233.8	207.9	good quality, best if harvested early
235	2-5	CD	1'	3.3'	9-3	1014.9	223.7	157.4	
233	Alaska Red	CD	1'	3.3'	9-3	1003.6	221.3	152.1	nice quality, tendency to shattercrack
243	8-13	CD	1'	3.3'	9-3	999.1	220.2	167.9	
236	21-6	CD	1'	3.3'	9-3	986.6	217.5	167.2	
	Green Mountain	AK	1'	3.3'	9-3	963.9	212.5	181.0	
	Alaska 114+ ^b	AK	1'	3.3'	9-3	927.0	204.4	171.7	good quality
237	10-1	CD	1'	3.3'	9-3	901.5	198.8	212.1	
228	Snowchip	CD	1'	3.3'	9-3	884.5	195.0	184.3	
	Rote Erstling	AK	1'	3.3'	9-3	884.5	195.0	190.2	excellent early red, yellow flesh
249	Norgold Russet	P&S	1'	3.3'	9-3	861.8	190.0	215.5	
234	Denali	CD	1'	3.3'	9-3	816.5	180.0	151.2	
244	82-11	CD	1'	3.3'	9-3	816.5	180.0	122.3	
239	87-8	CD	1'	3.3'	9-3	810.8	178.8	157.4	
241	Allagash	CD	1'	3.3'	9-3	810.8	178.8	163.8	
	Alaska 114	AK	1'	3.3'	9-3	799.5	176.3	167.0	
242	14-1	CD	1'	3.3'	9-3	708.8	156.3	186.5	
231	24-3	CD	1'	3.3'	9-3	669.1	147.5	132.5	
	Nooksack	MS	1'	3.3'	9-3	459.3	101.2	148.2	

^aSee seed sources list.

^bAlaska 114+ was fertilized with 1550 lb/A 10-20-20.

Note: Potatoes were planted May 20, 1981 in bottomland soils that were amended in 1975 with approximately 1000 yd³/A peat acquired from the College Peat bogs. The pH of the peat amended soils was 5.4. Fertilizer application was 1145 lb/A prior to rototilling.

Table 14. Pumpkin Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (kg/plant)	Yield (lb/100')	Average Wt. (gm)	Comments
			plant	row					
5202	Connecticut Field	St	8'	8'	9-14	11.8	338.0	8845	consistent high yield
5105	Funny Face	Tw	5'	8'	9-14	10.3	476.0	4406	
5089	New England Pie	J	5'	8'	9-14	9.3	430.5	1328	white skin
4978	Little Boo	Ag	5'	8'	9-14	8.1	374.5	2996	
5383	Atlantic Giant	Hb	8'	8'	9-14	3.5	99.7	10433	
5049	Cheyenne Bush	F	5'	8'	9-14	3.0	140.0	4536	

^aSee seed sources list.

Note: Greenhouse started plants, 32 days old, were transplanted into the field on June 5, 1981. Plants were grown through 1.5-mil clear polyethylene. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling.

Table 15. Summer Squash Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
5281	Greyzini	NK	3'	5'	7-17	6150.0	461.0	351.4	
5284	Black Eagle	NK	3'	5'	7-17	5650.0	423.5	418.5	
4998	Kuta	P	3'	5'	7-24	5090.0	381.5	328.4	
5092	Seneca Gourmet	J	3'	5'	7-31	3805.0	285.2	237.8	
5107	Black Satin	Tw	3'	5'	7-21	3575.0	268.0	357.5	
5280	Black Zucchini	NK	3'	5'	7-17	3487.5	261.4	387.5	
5282	Seneca Prolific	NK	3'	5'	7-27	3290.0	246.6	253.1	
4769	Seneca Butterbar	P	3'	5'	7-29	2595.0	194.5	199.6	
4997	Dixie	P	3'	5'	7-21	2465.0	184.8	273.9	
4801	Gold Rush	AAS	3'	5'	7-29	1710.0	128.2	244.3	
5260	Peter Pan	AAS	3'	5'	7-31	1367.5	102.5	182.3	patty pan
5283	Daytona	NK	3'	5'	8-5	1362.5	102.1	247.7	
4784	Scallopini	G	3'	5'	7-29	827.5	62.0	206.9	patty pan

^aSee seed sources list.

Note: Greenhouse started plants, 25 days old, were transplanted into the field on June 5, 1981. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling.

Table 16. Winter Squash Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
5178	Sweet Mama	St	5'	8'	9-14	7605.3	352.1	3802.7	
4278	Golden Hubbard	St	8'	8'	9-14	9525.7	273.0	2857.7	
3443	Pink Banana	Ho	8'	8'	9-14	8316.0	238.3	4989.6	
5095	Red Kuri	J	8'	8'	9-14	8164.7	234.0	1440.8	
5463	Delica	Al	8'	8'	9-14	7647.7	219.2	1529.5	
5464	Table Ace ^b	Al	5'	8'	9-14	1020.5	47.2	340.2	
4417	Boston Marrow	A&C	8'	8'	9-14	1512.0	43.3	4536.0	

^aSee seed sources list.

^bEarly flowering and fruit set induced by artificially imposed short day length prior to transplanting.

Note: Greenhouse started plants, 32 days old, were transplanted into the field on June 5, 1981. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling.

Table 17. Sweet Corn Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/20' plot)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
5422	Onthyb 802	Si	1'	5'	8-21	8142.5	89.8	191.6	
5484	Early Arctic	T&T	1'	5'	9-2	6897.5	76.0	219.0	
5163	Butter Vee	St	1'	5'	9-11	6565.0	72.4	257.5	
3336	Northern Vee	St	1'	5'	8-21	5562.5	61.3	241.8	
5161	Polar Vee	St	1'	5'	8-21	5412.5	59.7	216.5	
5162	Earlivee	St	1'	5'	9-2	5050.0	55.7	229.5	
	Yukon Chief	AK	1'	5'	8-21	4497.5	49.6	134.3	
5043	Faribo Sugar & Gold	F	1'	5'	9-2	4480.0	49.4	169.1	
5296	Earliking	NK	1'	5'	9-16	3870.0	42.7	266.9	
4500	Sunny Vee	St	1'	5'	9-2	3640.0	40.1	280.0	
5332	Sugar & Gold	Se	1'	5'	9-10	2950.0	32.5	184.4	
4320	Explorer	Tw	1'	5'	9-2	2855.0	31.5	237.9	
5246	Kelvedon Sweetheart	U	1'	5'	9-2	2860.0	31.5	248.7	
5425	Onthyb 805	Si	1'	5'	9-11	2775.0	30.6	231.3	
5483	T&T Sweet Beauty	T&T	1'	5'	9-10	2587.5	28.5	235.2	
5167	Seneca Sunbeam	St	1'	5'	9-11	2552.5	28.1	300.3	
5081	Ashworth	J	1'	5'	9-2	1910.0	21.1	166.1	
5423	Onthyb 803	Si	1'	5'	9-11	1860.0	20.5	248.0	
1922	Seneca 60	St	1'	5'	9-16	1435.0	15.8	239.2	
5424	Onthyb 804	Si	1'	5'	9-16	1247.5	13.8	277.2	
4527	Gold Crest	S	1'	5'	9-16	717.5	7.9	205.0	
5165	Northlite	St	1'	5'	9-16	600.0	6.6	240.0	
5426	Onthyb 806	Si	1'	5'	9-16	575.0	6.3	287.5	
5427	Onthyb 741	Si	1'	5'	9-16	507.5	5.6	253.8	
5068	White Sunglow	Bu	1'	5'	9-16	507.5	5.6	169.2	
4528	Candidawn	S	1'	5'	9-16	415.0	4.6	276.7	
5429	Onthyb 809	Si	1'	5'	9-16	385.0	4.2	256.7	
5333	Early Sunray	Se	1'	5'	9-16	280.0	3.1	186.7	
5248	Kelvedon Glory	U	1'	5'	9-16	135.0	1.5	270.0	
4501	Northern Sweet	St	1'	5'	9-16	107.5	1.2	215.0	
4513	Peaches & Cream	Bg	1'	5'	9-16	67.5	.7	135.0	
5247	Extra Early Sweet	U	1'	5'	none				
5168	E. E. Super Sweet	St	1'	5'	none				
5164	Golden Vee	St	1'	5'	none				
5333	Early Sunray	Se	1'	5'	none				
4986	Early Sunglow	P	1'	5'	none				
4404	Six Shooter	Gu	1'	5'	none				
5166	Earligem	St	1'	5'	none				
3410	Rogers 71276	RB	1'	5'	none				
5428	Onthyb 742	Si	1'	5'	none				

^aSee seed sources list.

Note: Sweetcorn was seeded May 5, 1981 and covered with 1.5-mil clear polyethylene. After plants were approximately 4" tall, slits were made to allow plants to emerge from beneath the plastic. The fertilizer application was 1834 lb/A 10-20-10 prior to rototilling. The wet, cool season and early frost damage resulted in poor pollination and low quality ears.

Table 18. Tomato Variety Trials, Upland, 1981.

A. E. S. Accession No.	Variety	Source ^a	Spacing		First Harvest	Yield (gm/plant)	Yield (lb/100')	Average wt. (gm)	Comments
			plant	row					
5501	Shoshone	M	3'	5'	8-14	463.8	34.8	22.6	
5503	Bonner	M	3'	5'	8-31	405.0	30.4	40.5	
5502	Latah	M	3'	5'	8-31	320.0	24.0	35.6	
5206	Starfire	St	3'	5'	9-8	300.0	22.5	180.0	
5094	Sub-Arctic Maxi	J	3'	5'	8-14	278.8	20.9	39.8	
3475	Tanana	F	3'	5'	8-31	199.0	14.9	44.2	
4658	Harbinger	Su	3'	5'	8-17	170.0	12.7	31.9	
4564	Sub-Arctic Plenty	T&M	3'	5'	7-31	163.8	12.3	10.9	
5410	Willamette Cherry	D	3'	5'	8-7	158.3	11.9	11.1	
5242	Histon Early	U	3'	5'	9-14	110.0	8.2	40.0	
5465	Farthest North	Al	3'	5'	7-31	94.5	7.1	7.6	
5432	Ontario 811	Si	3'	5'	9-14	77.5	5.8	62.0	processing type
4791	Ontario 809	Si	3'	5'	9-8	75.0	5.6	75.0	processing type
5431	Ontario 8011	Si	3'	5'	9-8	58.3	4.4	43.8	processing type
5485	Ping Pong	T&T	3'	5'	9-4	58.8	4.4	29.4	
5071	Burpee's Early Pick	Bu	3'	5'	9-14	53.8	4.0	71.7	
4392	Earlirouge	J&P	3'	5'	9-8	42.5	3.2	85.0	
4792	Ontario 771	Si	3'	5'	8-21	37.5	2.8	75.0	processing type
4630	Whippersnapper	J	3'	5'	8-14	33.8	2.5	33.8	
5209	Jetfire	St	3'	5'	9-14	20.0	1.5	80.0	
5430	Ontario 8012	Si	3'	5'	9-14	18.8	1.4	37.5	processing type
4788	Basket Vee	Si	3'	5'	8-31	5.0	0.4	15.0	
5093	Earlibright	J	3'	5'					
5435	Ontario 812	Si	3'	5'					processing type
4659	Alicante	Su	3'	5'					
5480	Prairie Pride	T&T	3'	5'					
5109	Early Big	Tw	3'	5'					
5111	Early Giant	Tw	3'	5'					
5112	Springset	Tw	3'	5'					

^aSee seed sources list.

Note: Greenhouse started plants, 52 days old, were transplanted into the field June 5, 1981. Plants were grown through 1.5-mil clear polyethylene. Fertilizer application was 2018 lb/A 10-20-20 prior to rototilling. The wet, cool season and early frost damage resulted in poor quality and low yields.

Miscellaneous Vegetables Tested

Crop	Source	Comment
Artichokes		
No. 4635 Grand Beurre	T&M	first harvest 9-2, yielded 187g/plant
No. 3412 Green Globe	Hb	first harvest 9-2, yielded 55g/plant
Beets		
No. 1981 Burpee's Golden	Bu	poor germination
No. 1739 Formanova	V	cylindrical shape, good quality
No. 4983 Honey Red	Ag	bolted
No. 5457 Mono King Explorer	Al	bolted
No. 5180 Pacemaker II	St	did not germinate
No. 4238 Spring Red	St	did not germinate
No. 5439 Tardel	E	satisfactory
Butterhead Lettuce		
No. 5461 Prizehead	Al	slightly buttery, bronze tips
No. 5197 Ostinata	St	dependable, good quality
No. 3471 Kagran Summer	J	dependable, good quality
No. 5087 Resistant	J	very good flavor, buttery, tight head
No. 4656 Continuity	Su	small, tight heads, good flavor, red tipped
Chard		
No. 5363 Green Smooth Leaf	WD	satisfactory
No. 1984 Lucullus	Bu	pale green, bolts if not harvested promptly
No. 4257 Rhubarb	St	attractive red ribs, first to bolt
No. 4256 White King	St	dark green leaves, good quality, did not bolt
Chinese Vegetables – Cabbage		
No. 5493 China King	Gr	bolted
No. 5557 Early Hybrid G	H	savoy type, very good
No. 5379 50 Days	Hb	small heads, good
No. 5556 Jade Pagoda	H	large size, straight, open habit, very nice
No. 5467 Spring A-1	Al	harvest promptly
No. 5184 Springtime	St	harvest promptly
Chinese Vegetables – Greens		
No. 4823 Chinese Lei Choi	Bu	nice, bolts if not harvested promptly
No. 5359 Japanese Giant White Pak Choi	WD	
No. 5251 Pak Choy	NK	
Chinese Vegetables – Kale		
No. 5491 Gai Lohn	Gr	good
No. 5353 Green Lance	WD	best flavor, nice

Crop	Source	Comment	
Dill			
No. 3297	Tuve	Ag	satisfactory
No. 4069	Long Island Mammoth	NK	satisfactory
No. 4313	Dukat	Ag	satisfactory
Edible Podded Peas			
No. 4039	Oregon Sugarpod	Bu	good quality
No. 5245	Sugar Dwarf Sweetgreen	U	small, very sweet
No. 3273	Sugar Snap	Bu	excellent, can be used at any stage
No. 5244	Tezieravenir	U	large size, poor flavor
Greens			
No. 5442	Corn Salad, Mache a Grosse Graine	E	satisfactory
No. 5352	Endive, Fullheart No. 5	WD	quite bitter
No. 5272	Kale, Vates	NK	good quality
No. 5354	Kale, Westlandse	WD	quite large
No. 5591	Borecole, Spurt	T&M	satisfactory
No. 5443	Escarole Festo	E	
Herbs			
No. 4049	Anise	Bu	none survived
No. 5002	Basil Lemon	P	did poorly due to cold, wet weather
No. 5003	Basil Holy	P	did poorly due to cold, wet weather
No. 5004	Basil Minimum	P	did poorly due to cold, wet weather
No. 5435	Basil Piccolo Verde Fino	E	did poorly due to cold, wet weather
No. 4070	Chervil	NK	satisfactory
No. 3821	Chives	P	satisfactory
	Chinese Chives		slow growth
No. 4382	Coriander	J	satisfactory
No. 3820	Curled Mint	P	satisfactory
No. 2057	English Thyme	NK	satisfactory
No. 5072	Florence Fennel	Bu	satisfactory
No. 4383	Horehound	J	satisfactory
No. 5436	Oregano	E	satisfactory
No. 5213	Rosemary	St	satisfactory
No. 5001	Rocket (Rucola)	P	interesting flavor, grows well
No. 5393	Safflower	Ap	did not survive cold, wet weather
No. 3819	Sage	P	weak transplants, did not survive
No. 2055	Summer Savory	NK	satisfactory
Kohlrabi			
No. 4996	Azurstar	P	excellent flavor, tender
No. 5085	Blue Danish	J	slow to mature, crunchy
No. 4104	Grand Duke	AAS	earliest, good flavor
No. 1983	Prima	Bu	slightly sweet, juicy
No. 5086	White Danish	J	slow to mature, tough

Crop	Source	Comments
Leaf Lettuce		
No. 5273	Oak Leaf	NK good variety
No. 5274	Ruby	NK dark red, attractive
No. 4045	Green Ice	Bu good variety
No. 4071	Salad Bowl	NK good variety
No. 4219	Red Salad Bowl	P good variety
No. 5460	Grand Rapids	Al good variety
Leeks		
No. 4343	Giant Elefant	WD largest size, best production
No. 4388	King Richard	J long necks, good quality
No. 1800	Titan	OE small size
Miscellany		
No. 3326	Rutabaga, Altasweet	St good
No. 5411	Parsnip, Fullback	D good size and quality
No. 3919	Spinach, Melody	G reliable, good quality
Parsley		
No. 4300	Curlina	St excellent
No. 5276	Dark Moss Curled	NK excellent
No. 5088	Delikat Original	J excellent
No. 5103	Improved Market	
	Gardeners	Tw excellent
No. 4301	Unicurl	St excellent
Radishes		
No. 3343	All Seasons White	Bu slightly tough, hot
No. 5252	Cherry Belle	NK earliest, good quality
No. 5204	Comet	St bolted
No. 5278	Giant White Globe	NK tough
No. 5106	Inca	Tw satisfactory
No. 5449	Munchner Bier	E novel, matures late, slightly hot
No. 5600	Prinz Rotin	T&M variable, some reached large size
No. 5462	Red Boy	Al some bolting, pithy
Turnips		
No. 5113	Royal Globe II	Tw
No. 5438	Des Vertus Marteau	E long shape
No. 1849	Tokyo Top	Sa most dependable

SEED SOURCES

A	Asgrow Seed Co., Subsidiary of the Upjohn Co., Kalamazoo, MI 49001
AAS	All-American Selections, 4546 El Camino Real, Suite A, Los Alto, CA 94022
A&C	Abbot and Cobb, Inc., P. O. Box 307, Feasterville, PA 19124
Ag	Agway Inc., Seed Division, Box 4933, Syracuse, NY 13221
AK	Alaska Agriculture Experiment Station, Fairbanks, AK 99701
Al	Alberta Nurseries & Seeds, Ltd., Box 20, Bowden, Alberta T0M 0K0, Canada
Ap	Applewood Seed Co., 833 Parfeit St., Lakewood, CO 80215
ARZ	A.R. Zwaan en Zoon B.V., Prinses Mariannelaan 296, P. O. Box 992, 2270 AZ Voorburg, The Netherlands
B	Burrell Seed Growers Co., P. O. Box 150, Rocky Ford, CO 81067
Bg	Burgess Seed and Plant Co., 905 Four Seasons Road, Bloomington, IL 61701
Bu	W. Atlee Burpee Co., 6350 Rutland Ave., Box 748, Riverside, CA 92502
CD	Dr. Curtis H. Dearborn, Agricultural Experiment Station, Box AE, Palmer, AK 99645
D	Dessert Seed Co., P. O. Box 181, El Centro, CA 92243
E	Epicure Seeds, Box 69, Avon, NY 14414
F	Farmer Seed & Nursery Co., Faribault, MN 55021
FM	Ferry-Morse Seed Co., P. O. Box 100, Mountain View, CA 94042
G	H. G. German Seeds, Inc., Box N, Smethport, PA 16749
Ge	Germania Seed Co., 5952 N. Milwaukee Ave., Chicago, IL 60646
Gr	Grace's Gardens, 22 Autumn Lane, Hackettstown, NJ 07840
Gu	Gurney Seed and Nursery Co., Yankton, SD 57079
H	Joseph Harris Co., Inc., Moreton Farm, Rochester, NY 14624
Hb	Herbst Brothers Seedsmen, Inc., 1000 N. Main St., Brewster, NY 10509
Ho	Hollar & Company, Inc., P. O. Box 106, Rocky Ford, CO 81067
HS	R. L. Holmes Seed Co., 2125-46 St., N. W., Canton, OH 44709
J	Johnny's Selected Seeds, Albion, ME 04910
J&P	Jackson & Perkins Co., Medford, OR 97501
K	Keystone Seed Co., P. O. Box 1438, Hollister, CA 95023
Ka	Arvo Kallio, 340 E. Lismore Rd., Duluth, MN 55804
L	The Charles H. Lilly Co., 7737 N. E. Killingsworth, Portland, OR 97218
M	Mountain Seed & Nursery, Box 271, Rt. 1, Moscow, ID 83843
MS	Max Stark, Agricultural Experiment Station, University of Alaska, Fairbanks, AK 99701
NK	Northrup King & Co., 1500 Jackson St., N.E., Minneapolis, MN 55413
OE	Ohlesens-Enke, NY Munkegaard, Copenhagen-Toastrup, Denmark
P	George W. Park Seed Co., Box 31, Greenwood, SC 29647
P&S	Pay 'n Save Stores, Fairbanks, AK
RB	Rogers Brothers Co., P. O. Box 1674, Idaho Falls, ID 83401
RS	Royal Sluis Inc., 1293 Harking Rd., Salinas, CA 93907
S	Siegers Seed Co., 7245 Imlay City Rd., Imlay City, MI 48444
Sa	Sakata Seed Co., 2 Kiribatake, Kanagawa-KV, Yokohama, Japan
Se	Seedway, Inc., Hall, NY 14463
S&G	Sluis & Groot of America, 124A Griffin St., Salinas, CA 93907
Si	Horticultural Experiment Station, Box 587, Simcoe, Ontario N3Y 4N5, Canada
St	Stokes Seeds, Inc., 5008 Stokes Bldg., Buffalo, NY 14240
Su	Sutton Seeds, Hele Road, Torquay, Devon TQ2 7QJ, England
T&M	Thompson & Morgan, Inc., Box 100, Farmingdale, NJ 07727
T&T	T & T Seeds Ltd., Box 1710, Winnipeg, Manitoba R3C 3P6, Canada
Tw	Otis S. Twilley Seed Co., Inc., P. O. Box 65, Trevoise, PA 19047
U	W. J. Unwin, Ltd., P. O. Box 9, Farmingdale, NJ 07727
V	Vesey's Seeds, Ltd., York, Prince Edward Is. C0A 1P0, Canada
WD	William Dam Seeds, P. O. West Flamboro, Ontario L0R 2K0, Canada