

# 1980 COMMERCIAL VEGETABLE Variety Trial Report - Broccoli

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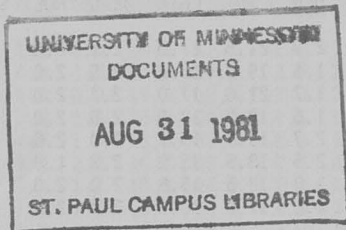
## BROCCOLI VARIETIES TESTED

Variety	Source
Basto F-1	Ohlsens Enke
Curos F-1	Ohlsens Enke
Exp Hyb 1466	Keystone
Exp Hyb 1467	Keystone
Futura	Asgrow
Gem	Asgrow
Green Comet	Harris
Green Delite	Harris
Green Duke	Northrup King
Green Dwarf	Stokes
Heralda	Bejo
Hybrid 4719	Dessert
Hybrid 4730	Dessert
Hybrid 7804	Dessert
Hybrid F	Harris
Jupiter	Dessert
Maya	Bejo
Packer	Petoseed
Premium Crop	Stokes
Ritados F-1	Ohlsens Enke
Stolto	Ohlsens Enke
Southern Comet	Agway
XP 470	Asgrow
Early One	Agway
Bravo	Stokes
Green Duke #4	Sakata
Cape Queen	Takii

Broccoli trials were conducted in Minnesota at five locations during the 1980 growing season: Becker, Grand Rapids, Morris, Waseca, and the Horticulture Research Center in Excelsior. Bordered observational and replicated studies (three or four reps) were conducted using the varieties listed below. Plots consisted of a single row 15 feet long, spaced 30 or 36 inches between rows and 18 inches between plants. The entire plot was used for data collection. Individual researchers were responsible for providing cultural practices (weed, insect, and disease control and fertilization) that simulate standard commercial conditions in their locations.

Ratings are judgments of individual researchers and should be used only to compare varieties within a location. Yields should be used only to compare varieties, since commercial yields can be expected to be somewhat different.

TABLE HEADING INFORMATION
<b>Head CLR</b> – 1-5 color rating (1 = lt. green to 3 = dk. green, 4 = blue-green, 5 = yellow-green)
<b>Head DEN</b> – 1-3 density rating (1 = solid, 2 = medium, 3 = loose)
<b>Head WD</b> – distance across top of head (cm)
<b>Head LGTH</b> – distance from center top of head to first expanding leaf (cm)
<b>Head BEAD</b> – 1-3 bead size rating (1 = small, 2 = medium, 3 = large)
<b>Head HOL</b> – hollow stem (1 = yes, 2 = no)
<b>Head STALK</b> – diameter of stalk (cm)
<b>Plant HT</b> – height of plant at maturity from base of plant to top of foliage (cm)
<b>Plant WD</b> – width of plant recorded at same stage as above, across the row from foliage edges (cm)
<b>Overall Rating</b> – 1-9 rating (1 = least desirable, 9 = most desirable)



**For further information call:**

- 612-373-1102** for results from Becker (Sand Plain Experiment Station) and Excelsior (Horticulture Research Center)
- 218-327-1790** for results from Grand Rapids (North Central Experiment Station)
- 612-589-1711** for results from Morris (West Central Experiment Station)
- 507-835-3620** for results from Waseca (Southern Experiment Station)

**BROCCOLI-1980 TRIALS**

**Location-Becker; Seeded 4/25; Planted 5/31**

REPLICATED TRIALS

Variety	1st HAR	Yield - 1000#/A		Re-sprout	Head Characteristics							Plant		#HAR	Overall Rating
		Primary Head			CLR	DEN	WD	LGTH	BEAD	HOL	STALK	HT	WD		
		Early	Total												
Southern Comet	7/25	13.9	23.6	3.7	4.0	1.5	20.8	18.5	2.0	1.3	3.8	54	80	3.3	6.8
Premium Crop	7/25	10.6	19.0	4.6	2.8	1.0	17.5	17.3	1.5	1.3	3.5	66	83	3.0	6.8
Stolto	7/25	9.9	13.9	4.1	4.0	1.0	15.3	14.5	1.3	1.0	4.0	58	81	2.0	3.8
Green Comet	7/25	9.6	12.6	3.4	4.0	1.3	16.5	13.5	2.0	1.5	3.5	60	94	2.8	5.3
Green Duke	7/29	16.8	21.4	2.6	2.8	2.5	16.8	17.8	2.0	1.3	3.5	60	76	1.8	4.3
Ritados F-1	7/29	12.3	19.4	2.6	4.8	1.5	15.5	15.3	1.3	1.0	4.0	65	83	2.0	5.8
Hyb. 4719	7/29	8.1	16.0	3.8	3.0	1.5	17.0	17.0	1.5	1.5	3.0	63	79	2.0	5.0
Packer	7/29	5.6	13.0	2.3	3.8	2.0	15.5	16.5	2.5	1.0	3.8	60	79	2.3	5.8
Futura	8/1	11.5	25.6	2.7	2.8	2.5	14.8	17.3	2.0	1.0	3.8	64	78	2.5	4.3
Exp. Hyb. 1466	8/1	18.0	24.0	2.2	3.8	1.5	14.0	14.3	1.3	2.0	3.8	58	78	1.8	5.0
Gem	8/1	9.3	15.8	3.0	3.8	2.0	14.5	14.8	2.5	1.0	3.3	70	79	2.0	4.8
Curos	8/18	9.1	10.5	.1	4.0	2.8	15.3	15.8	3.0	1.3	4.5	51	83	1.3	1.3

OBSERVATIONAL TRIALS

Jupiter	7/29	4.1	24.4	5.9	4	3	15	15	1	2	4	55	70	3	3
HYB 4730	7/29	8.7	13.4	2.3	4	1	16	17	1	1	4	60	70	2	6
XP 470	8/1	9.0	18.3	3.4	5	1	15	16	2	1	4	65	75	3	5
HYB F	8/1	11.0	12.5	8.6	4	1	17	14	2	2	3	70	90	2	7
Green Delight	8/1	3.8	11.0	8.0	4	2	15	16	2	2	3	70	75	2	6
Green Dwarf	8/11	19.5	19.5	3.6	1	1	18	10	1	2	3	40	70	1	2
Exp. HYB 1467	8/11	9.9	14.0	.4	4	3	16	16	1	1	3	65	80	2	5
HYB 7804	8/18	21.5	21.5	.4	3	2	16	20	3	1	4	65	70	1	5
Basto	8/29	40.7	40.7	0.0	4	3	20	15	3	1	7	70	95	1	1

**BROCCOLI-1980 TRIALS**

**Location-Grand Rapids; Seeded 4/28; Planted 5/29**

REPLICATED TRIALS

Variety	1st HAR	Yield - 1000#/A		Re-sprout	Head Characteristics							Plant		#HAR	Overall Rating
		Primary Head			CLR	DEN	WD	LGTH	BEAD	HOL	STALK	HT	WD		
		Early	Total												
Southern Comet	7/20	8.1	9.6	10.3	3.5	2.3	21.5	17.0	2.5	2.0	4.8	54	80	1.8	7.8
Green Duke	7/20	2.8	8.7	8.8	2.0	1.5	19.0	15.0	2.5	2.0	4.5	58	81	3.8	7.5
Green Duke =4	7/21	4.5	9.3	11.8	2.0	1.7	21.0	17.0	2.7	2.0	4.7	62	86	2.8	7.3
Gem	7/21	2.1	9.2	11.6	3.3	1.5	18.3	18.0	2.0	2.0	4.8	70	96	3.3	7.0
Bravo	7/21	4.5	8.1	10.8	2.7	2.7	19.3	15.7	3.0	2.0	5.0	60	88	3.3	7.3
Green Comet	7/22	2.9	7.8	8.3	3.5	2.5	18.5	15.8	2.8	1.8	4.3	56	82	3.3	7.3
Premium Crop	7/23	3.9	9.1	11.7	3.8	1.8	18.5	15.8	2.0	2.0	5.0	64	95	2.8	7.5
Packer	7/24	1.7	8.0	6.9	3.7	2.0	17.0	15.0	2.7	2.0	5.0	55	81	3.5	4.7

OBSERVATIONAL TRIALS

Jupiter	7/18	3.4	10.2	13.1	1	2	19	16	1	2	4	65	91	4	7
Green Delite	7/18	.6	8.5	6.7	4	2	18	14	3	1	3	66	78	3	6
Hybrid 4730	7/18	1.0	6.8	2.5	3	1	19	13	2	2	5	41	59	4	7
Hybrid F	7/18	2.1	6.4	7.4	4	2	20	14	3	1	4	64	82	4	7
Stolto	7/22	3.6	11.8	8.3	2	2	20	17	3	2	4	51	66	3	7
Ritados	7/22	2.5	9.7	11.2	2	1	17	15	3	2	5	52	106	3	6
Cape Queen	7/22	2.0	8.2	3.6	1	3	20	18	2	2	5	59	84	3	7
Hybrid 1466	7/22	1.3	6.9	7.8	-	-	-	-	-	-	-	66	101	4	-
Futura	7/22	1.4	6.7	10.1	4	2	15	18	3	2	4	62	94	4	6
Hybrid 1467	7/22	2.6	6.6	11.7	2	3	16	15	3	2	4	78	90	3	6
Early One	7/22	1.1	6.5	5.3	3	2	19	25	2	2	5	70	105	4	6
XP 470	7/25	3.0	11.4	7.4	4	1	16	14	3	2	5	71	116	3	7
Green Dwarf	7/25	.8	7.8	12.7	1	2	18	13	2	1	3	40	54	4	7
Hybrid 7804	8/1	6.7	14.9	6.7	4	1	21	18	1	2	6	64	89	2	5
Hybrid 4719	8/1	7.6	9.4	7.4	5	2	23	17	1	2	5	66	120	2	5
Basto	8/5	1.5	12.4	4.1	2	1	22	21	2	2	7	60	120	4	5
Curos	8/8	1.1	16.7	3.8	1	2	19	22	2	2	6	67	100	4	7
Heralda	DID NOT MATURE	-	-	-	-	-	-	-	-	-	-	86	151	-	-
Maya	DID NOT MATURE	-	-	-	-	-	-	-	-	-	-	86	161	-	-

### BROCCOLI—1980 TRIALS

Location—Morris; Seeded 4/9; Planted 5/19

Variety	Yield - 1000#/A			Head Characteristics						Plant		# Har.	Overall Rating	
	Primary		Resprout	Clr.	Den.	Wd.	Lgth.	Bead	Hol.	Stalk	Ht.			Wd.
	Early	Total	Total											
Replicated Plot														
Green Duke	4485	7744	.4	5	2	20	19	2	1	4	57	86	1.8	5
Premium Crop	2581	7034	4.3	1	1	18	16	2	1	4	63	97	3.0	5
Southern Comet	4388	6421	3.8	3	1	18	15	2	1	4	55	95	2.3	7
Packer	2259	6066	0	4	2	15	15	2	1	5	66	101	3.0	4
Hybrid F	1775	5840	1.7	2	2	15	15	2	2	3	49	84	3.0	4
Futura	1065	5614	1.2	4	3	17	20	2	1	4	50	75	3.0	4
Green Delite	1516	5518	2.3	3	1	15	14	3	2	3	57	80	3.3	4
Green Dwarf	4130	5421	.4	3	1	15	11	1	1	4	30	75	2.0	6
Green Comet	2904	5195	.3	2	1	16	13	3	1	5	58	96	3.0	6
Observation Plot														
Bravo	12681	12681	3.4	4	2	24	26	2	1	6	39	76	1	6
Ritados	2614	8131	2.2	5	1	16	13	1	1	4	60	93	4	5
X470	4356	8034	1.1	2	1	16	21	2	1	4	56	93	3	3
Stolto	5808	7357	.6	2	1	17	15	2	1	4	50	77	2	7
Jupiter	4550	6776	.7	2	2	20	24	2	2	4	56	88	3	5
Cleopatra	4840	6389	1.4	4	1	20	20	1	1	4	50	74	2	6
Hy 4719	1162	5227	.3	5	3	21	24	2	2	4	51	68	4	3
Green Goliath	1258	4840	.2	1	2	12	15	2	1	3	46	84	2	4
Spartan Early	968	3388	.9	2	2	15	17	1	1	3	35	50	4	2
Hy 4730	1646	3098	1.1	2	1	14	12	2	2	3	46	83	4	3
Hy 1466	2033	3001	0	1	3	13	15	1	2	4	52	91	3	2
Gem	2226	2614	.5	5	3	13	17	2	2	3	55	57	2	2
Hy 1467	581	1742	0	5	3	20	11	1	3	2	43	79	3	1
Basto	581	581	0	2	2	14	12	1	1	5	63	101	1	2

### BROCCOLI—1980 TRIALS

Location—Waseca; Seeded 4/25; Planted 6/5

#### REPLICATED TRIALS

Variety	1st HAR	Yield - 1000#/A			Re-sprout	Head Characteristics						Plant			Overall Rating	
		Primary		Head		CLR	DEN	WD	LGTH	BEAD	HOL	STALK	HT	WD		#HAR
		Early	Total	Total												
Green Duke	7/21	1.9	6.7	1.9	1.3	2.0	14.5	12.0	2.0	1.8	3.5	54	75	3.5	6.8	
Green Comet	7/21	1.8	6.6	2.0	4.0	1.3	17.0	13.3	2.0	1.5	3.5	59	86	3.5	7.5	
Premium Crop	7/23	3.3	10.6	0	4.0	2.0	19.3	13.3	2.0	2.0	4.0	61	36	4.0	7.7	
HYB 4719	7/23	2.6	7.6	1.0	3.0	1.5	16.0	14.3	1.5	1.5	4.3	52	85	3.0	6.5	
Stolto	7/23	2.7	7.2	.9	4.0	1.3	16.8	12.8	2.0	1.5	3.8	55	89	3.3	7.8	
Southern Comet	7/23	2.6	6.2	.9	4.3	2.0	16.7	18.0	2.0	2.0	3.3	50	81	2.7	6.3	
Gem	7/28	4.2	11.4	.7	4.0	1.3	16.3	14.5	2.0	1.0	4.3	56	74	3.0	6.8	
Ritados F-1	7/28	5.0	9.4	.9	2.0	1.5	16.3	14.0	1.5	1.3	5.0	54	87	3.0	6.5	
Packer	7/28	2.2	7.5	.3	4.2	1.8	14.4	13.0	2.0	1.5	4.8	51	91	3.8	7.2	
Futura	8/1	1.9	10.1	.6	2.5	2.0	14.5	14.0	2.3	1.3	4.0	55	72	4.0	6.8	
Exp. HYB 1466	8/5	3.0	7.7	3.4	2.5	1.8	15.0	15.5	1.8	2.0	4.0	52	73	3.3	6.0	
Curos	8/18	2.4	13.5	.1	3.8	2.0	17.3	15.5	1.5	1.0	4.8	57	88	3.3	5.8	

#### OBSERVATIONAL TRIALS

Hybrid 4730	7/23	1.1	7.7	3.7	4	2	16	12	2	2	3	52	78	4	7
Hybrid F	7/28	2.6	8.7	7.9	5	1	15	10	2	2	4	51	76	3	5
Jupiter	8/1	2.0	6.6	2.6	5	3	15	18	1	2	4	54	73	4	5
Green Delight	8/1	3.4	5.8	6.6	4	1	15	12	1	2	5	49	75	2	8
Green Dwarf	8/1	.8	5.5	6.6	4	1	14	10	2	2	4	37	57	4	7
XP 470	8/5	4.0	13.5	6.0	2	1	15	14	1	1	4	65	88	3	4
Exp HYB 1467	8/5	2.1	8.1	1.5	2	3	18	17	2	2	4	44	94	3	5
Hybrid 7804	8/18	6.7	13.1	.3	4	2	20	18	1	2	5	43	73	2	5
Basto	8/21	1.8	28.1	0	4	1	13	11	2	1	5	72	102	3	7



## BROCCOLI—1980 TRIALS

Location- Excelsior (Horticulture Research Center); Seeded 4/25; Planted 6/10

## OBSERVATIONAL TRIALS

Variety	1st HAR	Yield - 1000#/A		Re-sprout	Head Characteristics							Plant		#HAR	Overall Rating
		Primary Early	Head Total		CLR	DEN	WD	LGTH	BEAD	HOL	STALK	HT	WD		
Green Comet	7/28	2.8	6.4	2.7	4	1	17	8	3	1	4	54	56	3	9
Packer	7/28	.2	4.5	.8	4	3	16	9	2	2	3	39	51	4	7
Hybrid 4730	7/28	.5	2.8	1.7	4	2	13	9	2	1	3	44	57	4	8
Southern Comet	7/29	6.0	8.6	3.1	4	1	19	17	3	2	4	58	67	2	9
Hybrid F	7/30	.9	2.9	2.0	1	2	11	8	3	2	3	47	57	3	6
Jupiter	8/1	2.8	13.6	6.5	3	2	12	7	3	1	4	52	52	4	8
Green Duke	8/1	3.6	10.0	2.6	2	3	17	8	3	2	5	39	54	2	7
Ritados F-1	8/1	.5	8.9	3.5	2	2	12	11	3	1	5	53	66	3	7
Hybrid 4719	8/1	.2	5.9	3.1	4	2	15	7	3	1	4	40	62	4	9
Gem	8/1	1.7	4.2	2.4	4	2	12	10	2	1	4	56	54	4	7
Green Delight	8/1	3.5	3.7	2.8	4	2	14	8	2	2	4	43	63	2	5
Futura	8/4	1.3	6.0	2.1	2	2	13	5	2	2	4	53	45	4	8
XP 470	8/5	2.2	5.5	1.4	4	2	11	13	2	1	4	49	69	2	6
Exp. Hyb. 1467	8/8	8.2	9.4	2.8	4	2	15	7	2	2	4	61	87	2	7
Exp. Hyb. 1466	8/8	3.3	4.5	2.0	4	2	11	7	2	1	4	49	61	2	6
Hybrid 7804	8/14	2.9	6.0	.8	4	3	15	10	1	2	4	63	77	3	4
Green Dwarf	8/15	4.9	11.5	1.1	4	2	20	13	3	2	5	30	52	4	5
Basto	8/26	3.6	8.2	1.4	4	3	12	8	2	1	5	72	104	2	3

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