2002 BELL PEPPER CULTIVAR OBSERVATION

***William H. Shoemaker,**
University of Illinois

Vegetable growers in northern Illinois consider bell peppers a primary crop due to consumer demand, productivity and crop value. Both qualitative and quantitative factors determine bell pepper cultivar value to the grower. This trial evaluates bell pepper cultivars for northern Illinois.

Materials and Methods

This trial was conducted at the St Charles Horticulture Research Center, St Charles, IL, in a Proctor Silt Loam soil. Bell pepper cultivars were seeded in Pro-Tray 128sq plug flats with Jiffy Mix Plus growing media on 4/4/02. Transplants were fertilized weekly with 100 ppm N of 20-20-20 in the watering system at the Research Center greenhouse. The field was prepared by applying 0.75 lb aia trifluralin and discing in. No fertilizer was used. 4' black plastic mulch was laid with T-tape drip irrigation tubing laid underneath. Transplants were set in the mulch on 5/28/02 and watered in with a starter solution of 9-18-9 @ 2 gal/100 gal water. Cultivars were set in twin rows 18" apart with 16 plants per row, constituting a single unreplicated plot. Rows were 6' apart. No insecticides or fungicides were used. Irrigation was applied as needed to provide 1.5" - 2" water/week. Fruit were harvested as they matured continuously. They were graded to US #1 and #2 fruit.

Results and Discussion

See Table 1 for bell pepper data. This season was challenging for producing quality bell peppers. High temperatures, intense sunlight and lack of rainfall created stressful conditions, resulting in sunscald and reduction of fruit quality. Irrigation was essential for setting and sizing up fruit. However, pest pressure was low for peppers, with only a light infestation of european corn borer, which was controlled well.

Fruit in this trial were generally of good quality, though less productive than in some years. Most cultivars failed to size up to potential. Some seemed to be out of character, with elongated fruit and fewer 4-lobed fruit. Brigadier, ACX 830, Red Knight, Orion, King Arthur and Aladdin were the better cultivars in this year's trial.

**Sr Research Specialist, Food Crops, Dept. of Natural Resources and Environmental Sciences*

***TABLE 1. Bell Pepper Harvest Data**

Cultivar	Source	# 1 Fruit		# 2 Fruit		Ave Fruit Wt.	Tons/ Acre
		No.	Wt.	No.	Wt.		
Brigadier	RG	60	32.6	53	22.8	0.49	16.8
ACX 830	AC	58	32.4	70	27.2	0.47	18.1
Red Knight	ST	61	32.1	75	27.7	0.44	18.2
Sentry	RG	56	30.4	56	21.0	0.46	15.6
Orion	EZ	46	25.8	51	20.1	0.47	14.0
King Arthur	SM	51	25.3	87	32.5	0.42	17.6
Super Heavyweight	SM	46	25.0	47	20.0	0.48	13.7
Aladdin	RG	50	24.8	45	14.9	0.42	12.1
Legionnaire	RG	44	24.6	55	19.6	0.45	13.4
Diego	EZ	37	21.2	30	12.1	0.50	10.1
Paladdin	RG	41	20.9	72	26.9	0.42	14.5
PR 99-R2	PR	41	19.7	66	22.9	0.40	13.0
Boynton Bell	HM	36	17.7	82	31.5	0.42	15.0
ACX 220	AC	35	17.2	71	24.8	0.40	12.8
Camelot	SM	33	17.2	64	23.8	0.42	12.5
ACX 209	AC	34	17.0	73	26.7	0.41	13.3
PR 2000-516	PR	31	16.7	92	30.9	0.39	14.5
Commandant	RG	29	15.3	38	13.7	0.43	8.8
Ironsides	ST	28	15.2	56	20.4	0.42	10.8
Wizard	SM	27	14.5	60	18.6	0.38	10.1
PR 99-R4	PR	25	12.7	46	15.8	0.40	8.7

PR 99-Y3	PR	21	11.6	32	12.5	0.45	7.3
Early Crisp	BU	25	10.9	160	45.7	0.31	17.2

**All weights in pounds. Tons/acre are extrapolated data.*