

## Ornamental Corn Cultivar Trial, 2008

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### Introduction

Ornamental or “Indian” corn is a popular component of autumn displays and is a possible crop for growers trying to expand their fall marketing plan. It complements other decorative crops associated with autumn including pumpkins, gourds, and fall flowers. This trial of fourteen cultivars was conducted to help growers select ornamental corn with the best production and appearance characteristics for their intended market.

### Materials and Methods

*Planting.* The trial was planted with a John Deere 7000 corn planter on June 2, 2008, in a field with loamy-sand soil.

*Plot Design.* A randomized complete block design with two replications was used. Plots consisted of two rows spaced 30 in. apart and 30 ft long. After emergence, plants were thinned to approximately 10 in. apart and a uniform population of 21,000/acre.

*Fertility and Irrigation.* Water was applied as needed by overhead irrigation to supplement rainfall. Fertilizer was applied preplant incorporated at rate per acre of 60 lb nitrogen and 100 lb potassium (K<sub>2</sub>O). After crop emergence, 45 lb nitrogen was sidedressed on June 18 and again on July 11.

*Pest Control.* Dual II Magnum and Atrazine 4L herbicides were applied crop preemergence and Laudis herbicide was applied post emergence. Hero insecticide was sprayed on a

three to four day schedule while green silks were present to control ear worms and prevent ear damage.

### Results and Discussion

The fourteen ornamental corn cultivars evaluated in this trial reveal the diversity of characteristics available in this crop. Differences in plant standability, ear size, husk color, and most importantly, kernel colors, were noted. While many cultivars produced ears that had shiny multicolored kernels, a few, like Bloody Butcher, Redimaize, and Earth Tones, exhibited more unconventional but striking color themes. Notable traits are reported in Tables 1 and 2, where cultivars are arranged by ear size, from large to small. Longbow produced the largest ears having an average ear weight of 12.3 oz and an average ear length of 11.5 in. Laser Mixed, Indian Fingers, and Cutie Pops, on the other hand, developed mature ears that were less than 6 in. long and tended to have multiple ears per plant. These attractive miniature ears were an ideal size for use in smaller, more delicate, displays. Fiesta matured earlier than the other cultivars producing a showy 8 in. long ear, but weak stalks resulted in severe plant lodging that made harvest difficult. All cultivars produced attractive showy ears in the trial but two stood out for special mention: Longbow, because of its exceptionally long and colorful ears, and Redimaize, a vigorous dent corn with reddish colored plants and ears. Photographs of trial cultivars are posted on our Web site at: <http://mirdf.ag.iastate.edu/>.

**Table 1. Ornamental corn cultivar seed source and trial comments.**

Cultivar	Seed source*	Comments
Longbow	RI	Exceptionally long ears, multicolored kernels, white husk, slow to mature
Bloody Butcher	HA	Heirloom dent, large ears, dark blood-red kernels, white husk, late maturity
Calico Sioux	RI	Large ears, bright white kernels provide good contrast with darker colors
Wilda's Pride	HA	Late maturing, good yield of colorful ears, 9 in. to 10 in. long, some red husks
Redimaize	SW	Dent corn with uniformly large blocky ears, interesting red-tinged yellow kernels, wine colored plants and husk
Autumn Explosion	SW	Late maturing, good yield of multicolored ears, about 25% red husk
Indian Ornamental	ST	Multicolored ears, mostly white husks
War Bonnet	RI	Good contrasting color mix in ears, white husks
Earth Tones Dent	ST	Dent, unique mix of earthy pastel colors, white husk, some plant lodging
Underwood's Ornamental	HA	Heirloom with bright multicolored ears, a few red husks, some plant lodging
Fiesta	RI	Early maturity and nice multicolored ears but plants lodged badly
Laser Mixed	ST	Miniature popcorn, small multicolored ears, striped kernels, multiple ears/plant
Indian Fingers	HA	Small 4 in. to 6 in. long ears, glossy red, yellow and purple kernels
Cutie Pops	ST	Small multicolored popcorn, husk would frequently break off when pulled back

\*Source: HA=Harris Seeds, RI=Rispens Seeds, ST=Stokes, SW=Seedway.

**Table 2. Ornamental corn cultivar marketable yield and ear characteristics.**

Cultivar	Number marketable ears/acre	Average ear weight (oz)	Ear length (in.)	Tip fill rating*	Plant height (ft)
Longbow	14,790	12.3	11.5	F	8.7
Bloody Butcher	13,920	11.7	8.0	F-G	9.5
Calico Sioux	12,180	11.5	9.8	F	8.6
Wilda's Pride	16,820	10.8	9.8	F-G	8.8
Redimaize	20,300	10.7	8.4	G	8.5
Autumn Explosion	17,110	10.1	9.6	G	9.0
Indian Ornamental	13,920	9.9	8.9	F-G	9.0
War Bonnet	13,630	9.8	9.9	F-G	8.1
Earth Tones Dent	11,020	8.6	7.7	F	8.1
Underwood's Ornamental	16,240	7.7	7.4	G	8.1
Fiesta	17,690	5.9	8.1	G	7.3
Laser Mixed	31,900	2.7	5.3	G	7.6
Indian Fingers	30,450	2.3	5.6	G	7.3
Cutie Pops	27,840	1.7	4.9	G	7.9
Trial average	18,415	8.3	8.2		8.3

\*Tip fill rating: F=fair (½ in. to ¾ in. unfilled kernels at tip), G=good (less than ½ in. of unfilled kernels at ear tip).