

# Ornamental Corn — Chinook and Wampum

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Chinook and Wampum are early maturing ornamental corn cultivars available to gardeners and commercial growers for production in the cool season areas of the Pacific Northwest and other parts of the United States. Chinook, an early-maturing cultivar, produces medium-sized ears with red-bronze kernels and light red to purple-maroon husks. Wampum, an early to medium-early cultivar, produces small ears with small, highly multi-colored kernels and normally buff-colored husks.

These cultivars were developed by Dr. Jim Baggett at Oregon State University in Corvallis, Oregon. Wampum and Chinook are joint releases by the Oregon, Idaho, and Washington Agricultural Experiment Stations under the Tri-State Variety Release Agreement.

## Origin

Chinook was derived from crosses made in 1985 between Tom Thumb and an array of large ornamental corn plants. Tom Thumb is an early, dwarf popcorn variety. The commercial cultivars used in the crossing program included Fiesta (developed at the University of New Hampshire) and several unidentified cultivars. Mass selection was practiced in the F<sub>1</sub> and six subsequent generations. Early selections were based on early maturity, acceptable plant type, and colored pericarps. Selections from 1988 to 1991 focused on plants with ears having pericarps (primarily reds to bronze) and red-pigmented plants. At the time of release, 75 percent of the plants produced ears in the red-bronze range with an increased level of plants with dark red husks.

Wampum was derived from crosses made between Tom Thumb and several normal-sized ornamental cultivars including Fiesta. F<sub>1</sub> plants from a bulk of this cross were crossed with a strain designated as "small-late." "Small-late" is an unidentified cultivar with diverse colored kernels borne on miniature

ears with very small kernels. Early maturing F<sub>2</sub> plants with desirable colors and small kernels were bulked to start an open-pollinated line. Mass selection has continued through 1991 to develop the present mid-early cultivar with intermediate-sized ears, medium-small kernels, and a wide diversity of kernel color.

## Description

Chinook plants are normally 5 to 5½ feet tall bearing two ears on the main stalk and often two tillers, each with one small but usable ear. Top ear attachment on the main stalks are normally 24 to 28 inches above ground, with ear attachment on tillers often at less than 12 inches above ground.

At Corvallis, Chinook ears were harvested 85 to 95 days after planting when planted in May or June. Chinook was the earliest ornamental corn cultivar tested at Corvallis, as much as 4 to 5 weeks earlier than the small-eared, late varieties Papoose and Seneca Mini Indian.

Average ear length for Chinook is 5 to 6 inches, with an ear diameter varying from 1.3 to 1.6 inches. Ears have 10 to 14 rows of kernels on ears that are slightly to moderately tapered with most tips well filled. Kernels are moderately large (similar to mature sweet corn kernels), and are covered with a thin layer of horny endosperm, sometimes qualifying as flint but more often of the flour type.

Red and bronze are the principal kernel colors, with colors ranging from tan through dark maroon because of the effect of pericarp colors on mixed light and dark aleurone colors. Approximately 75 percent of the ears have colored pericarps with 25 percent colorless pericarps that are shades of yellow and darker. Continued selection will reduce the frequency of colorless pericarps. Husks tend to be coarse and stiff with husks of ears with colored pericarps ranging from light red to purple-maroon.

Wampum plants are normally 6 to 6½ feet tall bearing two ears on main stalks and two to four tillers with small but usable ears under good growing conditions and relatively low plant populations. Top ears on main stalks are normally attached 43 to 46 inches above the ground.

At Corvallis, Wampum ears were harvested 95 to 105 days after a May planting. Harvest is about 10 days later than Chinook, similar to Little Jewels and up to a month earlier than Papoose or Seneca Mini Indian at Corvallis.

Average ear length for Wampum is 4.0 to 5.3 inches with ear diameter ranging from 1.4 to 1.6 inches. A small percentage of ears may fall outside this range and unusually small or large ears should be eliminated in maintenance of seedstock. Tip fill is good on most ears.

Kernels are normally small to medium in size. Ears are mostly straight with 16 to 20 rows of kernels. Kernels are normally flinty but may be floury or segregating.

Kernel color includes shades of yellow, gold, pink, blue, white, red, blue-black, and purple with

great variation often occurring on a single ear. Most ears have clear or light pericarps that do not dim the aleurone color. A small percentage of ears have red pericarps, resulting in varying shades of dark maroon when aleurone colors are sharply contrasting. Kernels that are homozygous recessive for white or yellow may produce similar colored ears but are often cross pollinated resulting in multiple colors. Husks are more papery than those of Chinook and are mostly buff colored but may range to purple-red.

Plot and stock seed is available from Dr. Jim Baggett, Department of Horticulture, Oregon State University, Corvallis.

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