

## Sweet Corn Seed Treatment and Seedling Establishment Trial – 2004

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### Objective:

Ten seed treatment combinations plus an untreated control were tested on two cultivars of sweet corn (*sh<sub>2</sub>* ‘How Sweet It Is’ and *se* ‘July Gold’) to determine the best seed treatments for optimum stand establishment.

### Materials and Methods:

Plots were established at the North Central Agricultural Research Station (NCARS) near Fremont, Ohio on April 28, 2004. Four replications of 100 seeds were planted in rows spaced 30” apart with 4-5” between seeds. Each cultivar was planted in a randomized block design. Soil type was Colwood fine sandy loam. Soil temperature at a 2” depth at planting was 56°F. When plants reached at least the 5-6 leaf stage stand counts were taken to determine effective seed treatments for optimum sweet corn stand establishment. Laboratory cold tests (50°F for 7 days, then 77°F for 4 days) were also performed on each seedlot.

### Results and Discussion:

Emergence of the *se* cultivar ‘July Gold’ was lowest in the untreated check plots and all seed treatment combinations resulted in significantly higher emergence values. The emergence range in Fremont was 35% to 74% (Table 1).

There were no significant differences among any of the treatments of *sh<sub>2</sub>* cultivar ‘How Sweet It Is’ (Table 1). Emergence of ‘How Sweet It Is’ ranged from 60% to 82%.

This project was part of a multi-location trial organized by the Seed Treatment Committee of the International Sweet Corn Development Association, a non-profit research organization. The information generated from this study will be of value to sweet corn producers, industry personnel, consultants, farm advisers, extension plant pathologists and others interested in identifying the best performing seed treatments for optimum stand establishment.

Laboratory cold tests were conducted in the Seed Biology Lab, OSU, Columbus, Ohio. Percent emergence ranged from 62% to 90% for ‘July Gold’ and from 55% to 82% for ‘How Sweet It Is’. Untreated checks in both cultivars were significantly lower than any of the seed treatment combinations.

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