

MICROWAVE TESTS 2006

The Microwave tests were done to provide some preliminary data on new and existing hybrids. We hope this data will provide some beneficial information to our customers. We recommend that if you are interested in any of our hybrids for microwave use, you hold the hybrid to your own test standards. We will provide you with samples of any of the hybrids upon request.

Microwave Test Variables

We used 4 repetitions of each hybrid tested. Out of the 4 repetitions, 2 of the repetitions were from the same research plot, from the same 2 row entry. Each hybrid therefore has 2 identical repetitions from one research plot and 2 more identical repetitions from another research plot. Subjecting the hybrid to this type of test allowed us to see the consistency of a hybrid in the microwave from two different growing conditions throughout the year.

With every repetition we used 65g of popcorn and 40g of peanut oil measured with a digital scale to the tenth of a gram. We subjected every repetition to 1 minute and 40 seconds of popping time. The average consumer microwaves popcorn button time varies from company to company and model # to model #. The popping time of 1 minute 40 seconds represents the shortest of the microwave popcorn buttons available on the market. Using this time limit sets a standard. The standard is to see whether a hybrid has the ability to have a low amount of popcorn kernels UN popped in a consumers microwave with the minimum popping time. The microwave used was a Sharp 1000 Watt/R-21 HT commercial microwave. After popping, the sample was ran over a 20/60mm screen and then measured in a 4000mm graduated cylinder. The sample was then subjected to tasting evaluation of Tenderness (1= tough as cardboard, 5= perfect no toughness) and Hulls (1= lots of hulls, 5= no hulls). The unpopped kernels were weighed on a digital scale to one tenth of a gram. The samples kernel count per 10 grams and pop (mwvt) in oil were included.

Results

The most consistent result was each hybrid showed a 2 to 4 gram range of kernels unpopped between its highs and lows. N11850 and N1115 were the only two hybrids that had a range of less than 2 grams of kernels unpopped among all 4 repetitions. The two identical samples within one hybrid were not always consistent when comparing their scores. Each hybrid had 2 samples from two different growing environments. Some hybrids showed a consistent difference in scores from one growing environment to the other.