

ISSS/ ISTA / INSR Web-based resources for seed scientists

Kirk Remund, Jean-Louis Laffont, and Corinne Guimier have answered all the questions that were sent in during the session in detail below.

Is there a way to view the formulas/VBA/Macros in the tolerance calculator or even SeedCalc8 to visualize the calculations?

KR & JLL: The SeedCalc8 spreadsheet is protected to avoid user misentries. However, it is not password protected so the user can simply unprotect the sheets to see formulas and the VBA macros. For the germination calculator, an unprotected spreadsheet is available upon request.

My question is about the seed weights. Sometimes, a species' seeds have an especially wide range of weights, due to seed units with outer coverings or appendages. Sometimes this range might originate from measurement error or other factors. Does the new SID remove extreme outlier values for seed weight when calculating the average seed weight for a species?

KR & JLL: Yes, the ISTA tool uses the well-established Grubbs Test to remove extreme outlier seed weight values.

Are Tolerance Tables available for Seed Health Test Results?

KR & JLL: MS Excel tolerances tables are only presently available for germination tests.

Is it necessary to do Heterogeneity Test routinely for every sampling operation?

CG: The heterogeneity test is done when is suspected the presence of heterogeneity which makes the seed lot technically unacceptable for sampling according to the requirements of the ISTA Rules. During the routine sampling the sampler is obliged to observe the uniformity of the primary samples and to stop sampling if heterogeneity is detected.

How do we handle situations when the No. of replications and or the No. of seeds tested are different between laboratories involved in the comparison?

KR & JLL: The tolerance tables assume the same number of seeds per replication and the same number of test replications across the laboratories. To use the tolerance tables, while the number of test replicates needs to be the same, some small departure (one or two seeds) in the number of seeds per replicate can still provide meaningful tolerances.