



INTERNATIONAL SEED TESTING ASSOCIATION (ISTA)

Secretariat, Zürichstrasse 50, 8303 Bassersdorf, CH-Switzerland

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To all participants
ISTA GMO Proficiency
Test
PT16

Bassersdorf, 14 December 2012

Dear Madam, dear Sir,

Proficiency Test Results and Rating

Please find enclosed your laboratory's test results and ratings for PT16.

Experimental Design

Samples were either negative, i.e. did not contain any transgenic events, or positive, i.e. contained the transgenic event GA21. When preparing the positive samples, defined numbers of seeds were mixed with non-GM seeds. The purity of both seed lots used in this PT round (GM and non-GM) was checked by PCR and confirmed as meeting the purity standard required, prior to sample preparation.

Each participating laboratory received 9 numbered maize seed samples, containing approximately 1'800 seeds based on the 1'000 seed weight.

Each sample set comprised 9 samples with three spiking levels of 0.11, 0.779 or 1.279 % (number of seeds) GM seeds (c.f. table below).

PT16 sample details

Spiking level	0%	0.11%	0.779%	1.279%
Event	None	GA21	GA21	GA21
Lot Nos	1, 2, 9	3, 4	5, 6	7, 8
Number of samples	3	2	2	2
Number of non-GM seeds	1'800	1798	1786	1777
Number of GM seeds	0	2	14	23



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Evaluation

Sample sets were sent to 53 laboratories. 45 participants submitted their results, 5 provided qualitative results only.

Qualitative rating

The rating for the presence/absence (qualitative) results is based on a percentage of misclassified samples out of the total of 9 samples. Misclassification may either be a false positive or a false negative result. Missing results for individual samples are evaluated as misclassification.

Rate	Misclassified samples	Misclassified samples absolute numbers	Number of laboratories
A	0% - 5%	0	41
B	>5% - 10%	-	-
C	>10% - 20%	1	1
BMP	>20%	>1	3

Quantitative rating

The quantitative rating is based on the quantification results for the six positive samples and their reference value (samples with zero spiking level are not used in quantification rating). The reference value is either the number of GM seeds in percent, the mass of the GM seeds in percent or the median of the results reported by the participants in the unit '%DNA copies'. Which of the reference values is chosen is determined by the panel of experts appointed for each round, the guiding principle being:

Sub-sampling quantification: %number
Results reported in %number: %number
Results reported in %mass: %mass
Results reported in any other unit, such as number DNA copies: median

The ratings awarded in this round were as follows:

Rate	Number of laboratories
A	15
B	1
C	19
BMP	5

The reporting units used by participants were as follows:

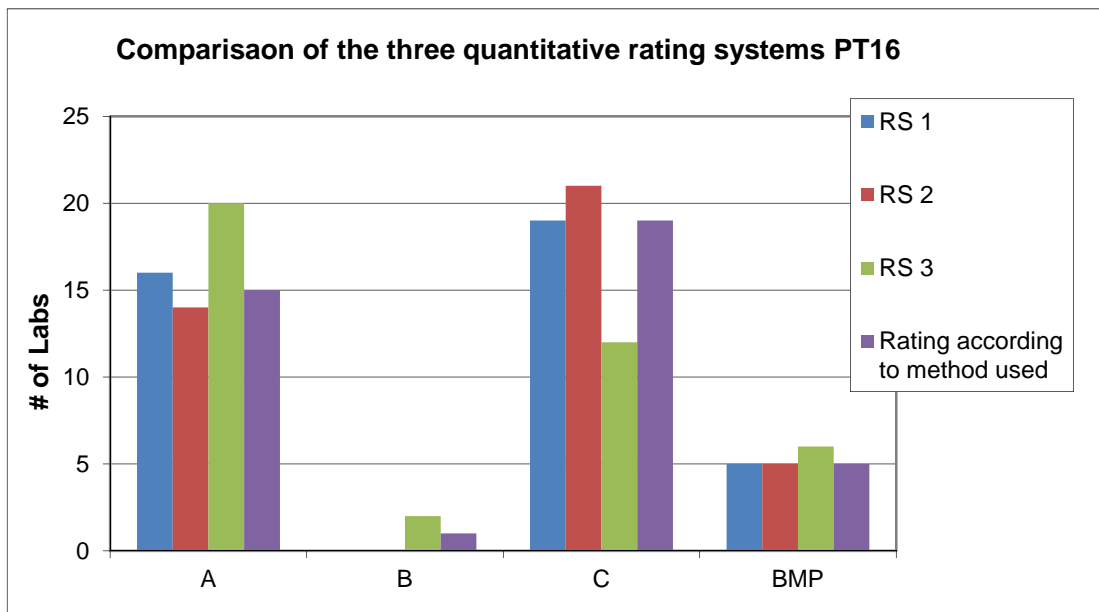
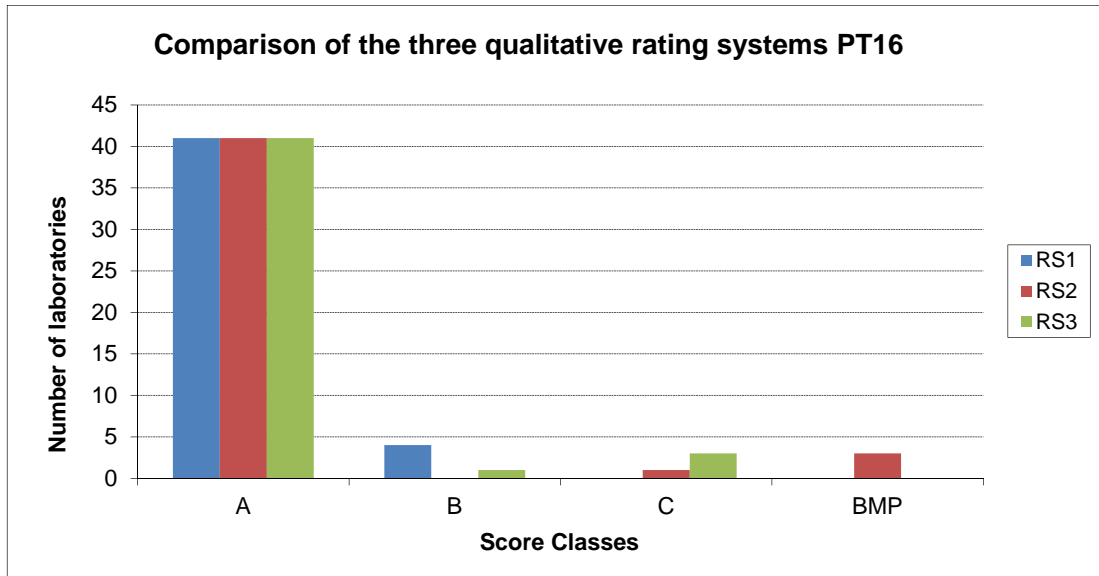
Reporting unit	Number of laboratories
% number	6
% mass	30
% DNA copies	4



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If you require a more comprehensive explanation of the rating system, please refer to Seed Testing International, The ISTA News Bulletin No. 130 (quantitative rating) and No. 128 (qualitative rating) or contact the ISTA Secretariat.

Yours sincerely,

Nadine Ettel
TCOM Coordinator

Enclose: mentioned