

2005-2006 SCST Proficiency Testing Results

2005-2006 Proficiency Testing Samples

Kind	Examination
<i>Lolium perenne</i> , perennial ryegrass	Purity & Germination
<i>Zea mays</i> (corn)	Germination

Sample Preparation

- Samples were prepared according to the ISTA sample preparation protocol.
- Homogeneity testing- 10 samples (of each kind) were randomly selected and tested by RSTs. The results were analyzed by the SCST Method Validation and Referee Committee and were found to be uniform.
- Samples were sent out by the SCST executive director to participants with the request that results be returned in two months.

Analysis of Results

Germination *Lolium perenne*, perennial ryegrass

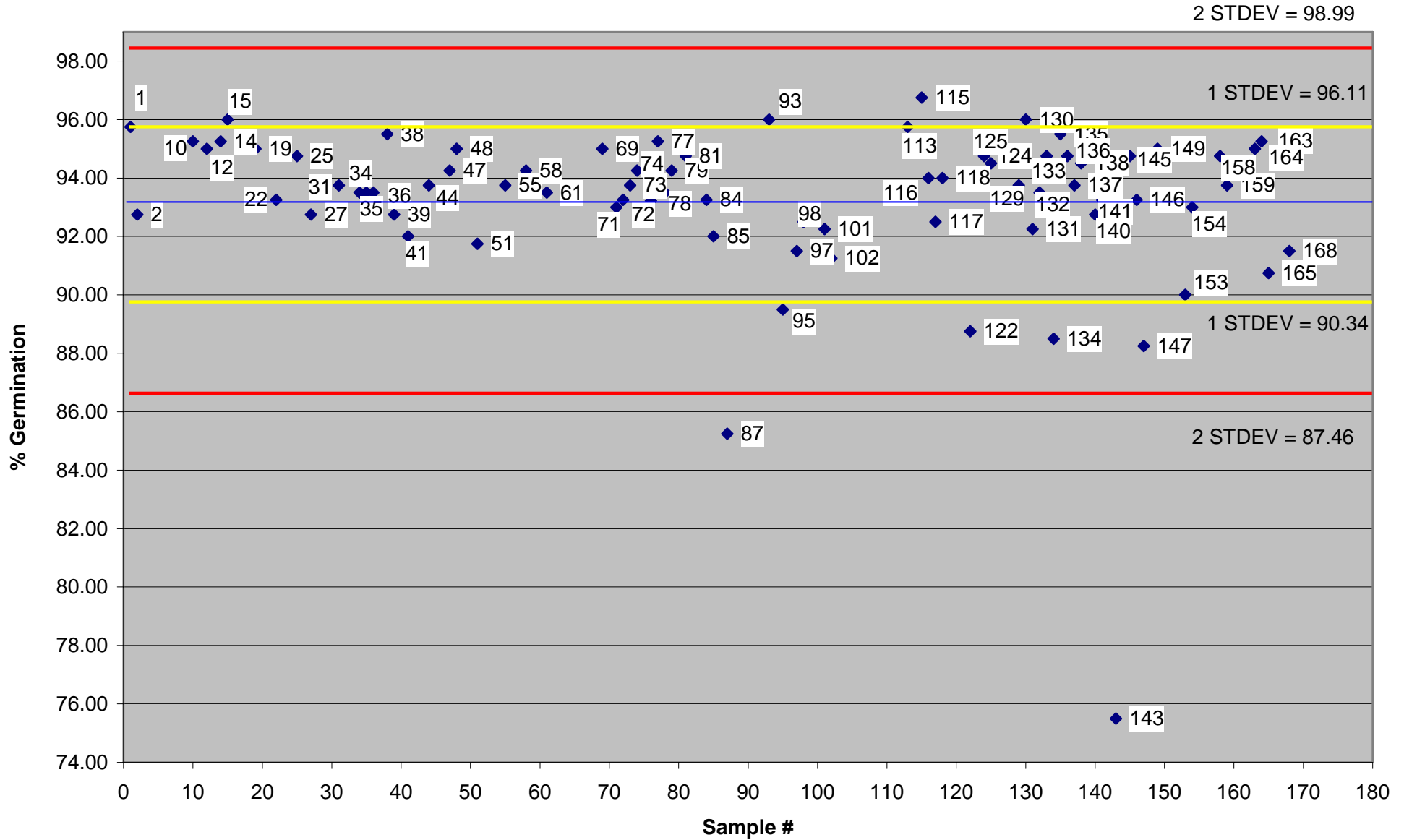
Total number of results returned: 75

- Results within one standard deviation from the mean: 87%
- Results within two standard deviations from the mean: 97%

	Normal seedlings	Abnormal seedlings	Dead seed
STDEV	2.88	1.61	1.86
STDEV *2	5.77	3.22	3.71
Mean	93.23	1.71	5.06

1 STDEV Above	96.11	3.32	6.92
1 STDEV Below	90.34	0.10	3.20
2 STDEV Above	98.99	4.94	8.77
2 STDEV Below	87.46	-1.51	1.35

Ryegrass Germination Results



Pure Seed Analysis *Lolium perenne*, perennial ryegrass

Total number of results returned: 75

- 84% were within one standard deviation of the mean
- 96% were within two standard deviations of the mean

	% Pure seed
STDEV	0.38
STDEV *2	0.75
Mean	98.98

1 STDEV Above	99.36
1 STDEV Below	98.61
2 STDEV Above	99.74
2 STDEV Below	98.23

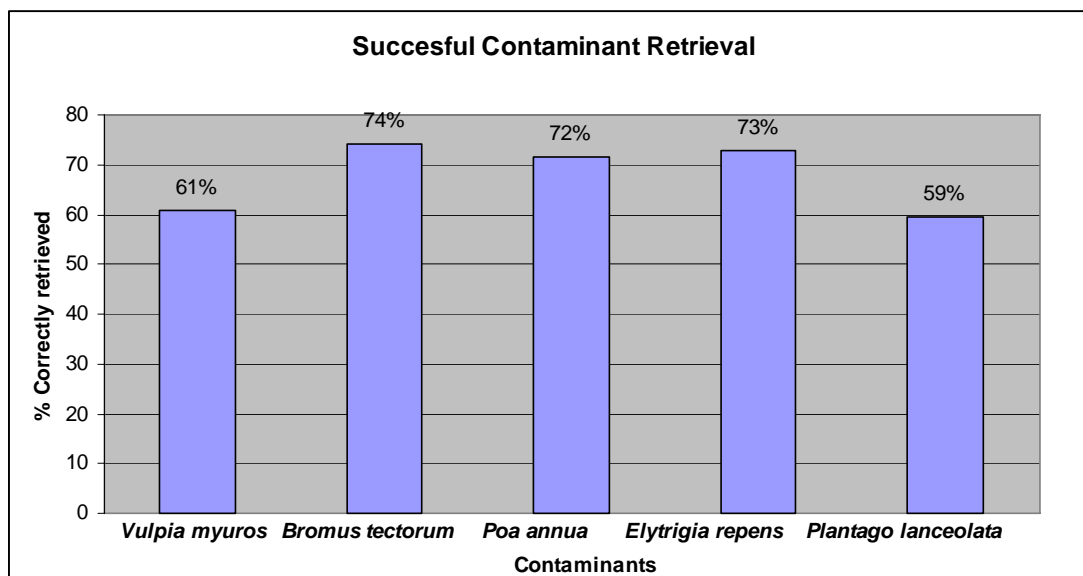
Contaminants

These seeds were added to each sample.

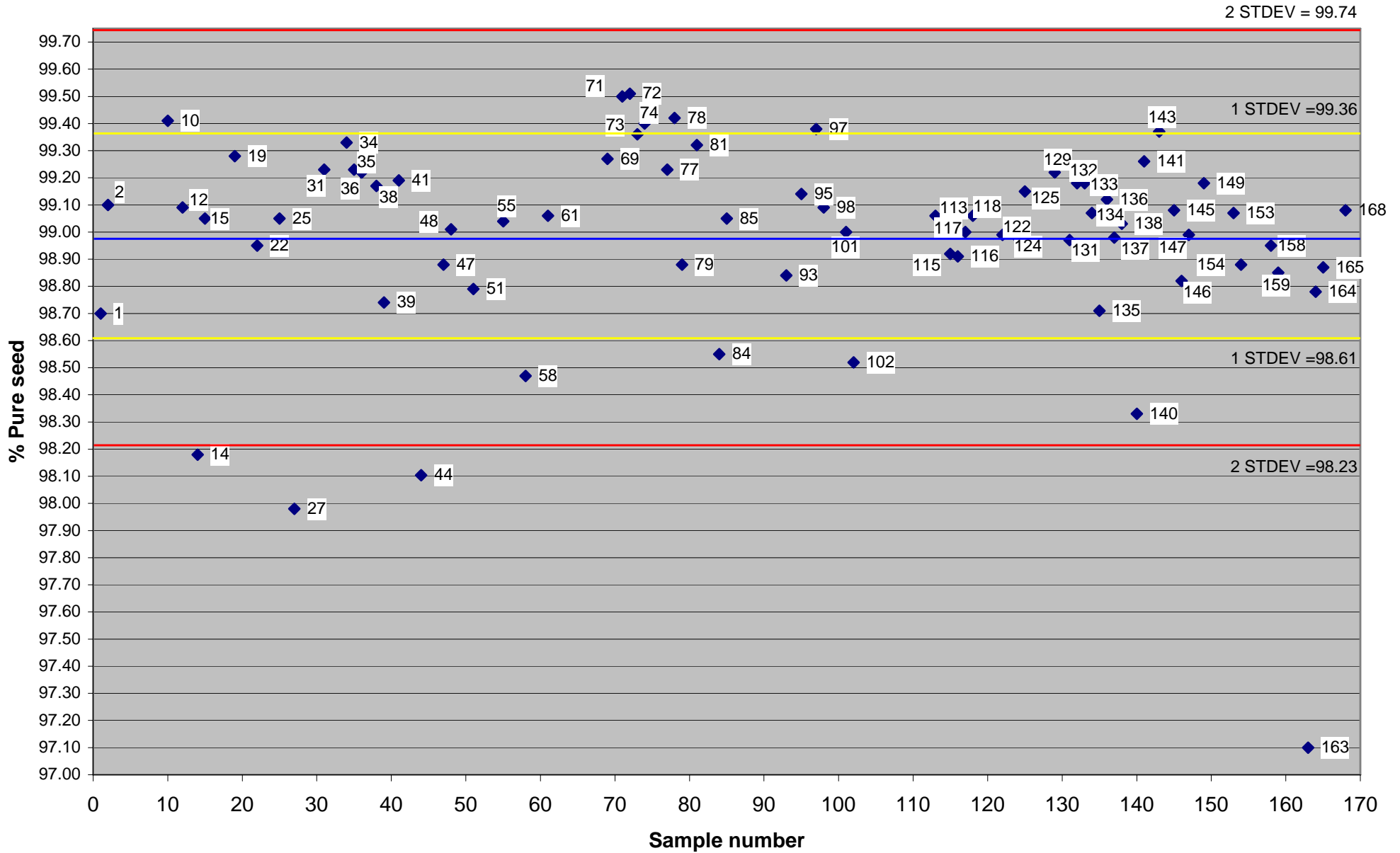
Kind	Rate of Occurrence
<i>Plantago lanceolata</i> , Buckhorn plaintain	2
<i>Elytrigia repens</i> , Quackgrass	2
<i>Poa annua</i> , Annual bluegrass	3
<i>Vulpia myuros</i> , Rattail fescue	3

Percent of participants that successfully retrieved the contaminants:

- 59% *Plantago lanceolata*, Buckhorn plaintain
- 73% *Elytrigia repens*, Quackgrass
- 72% *Poa annua*, Annual bluegrass
- 61% *Vulpia myuros*, Rattail fescue
- 74% *Bromus tectorum*, Downy brome



Ryegrass Purity Results



Germination Analysis *Zea mays* (corn)

Total number of results returned: 106

- Results within one standard deviation from the mean: 77%
- Results within two standard deviations from the mean: 97%

	Normal seedlings	Abnormal seedlings	Dead seed
STDEV	2.38	2.13	1.03
STDEV *2	4.77	4.25	2.05
Mean	94.50	4.13	1.35

1 STDEV Above	96.89	6.26	2.38
1 STDEV Below	92.12	2.01	0.33
2 STDEV Above	99.27	8.39	3.41
2 STDEV Below	89.74	-0.12	-0.70

Corn Germination Results

