

Tests performed on certified grains:

A) Purity: The sample is analyzed and divided into four components: pure seed, other crop, inert matter and weed seed. Noxious weed seed identification is included.

B) Germination: Seed germination: In seed laboratory practice, germination is defined as the emergence and development from the seed embryo of those essential structures which, for the kind of seed in question, are indicative of the ability to produce a normal plant under favorable conditions. Note: In laboratory practice tests are under optimal conditions. This may not be how the lot will perform under field conditions.

C) Pre-chill: A cold moist treatment applied to seeds to overcome dormancy prior to the germination test. The pre-chill varies among species, but is usually performed by holding imbibed seeds at a low temperature for a specified period of time.

AOSA Prescribed testing Duration for Certified Seed

Crop	Length of Test	+ Pre-chill	Total no. days
Barley	7	5	12
Bean	8	--	8
Buckwheat	6	--	6
Corn	7-9	--	9
Oats	10	5	15
Rye	7	5	12
Soybean	8	--	8
Triticale	7	5	12
Wheat	7	5	12

Note: Paired tests, i.e. germination and pre-chill tests, are performed continually throughout the year. If a sample is dormant the pre-chill results should be higher. If the sample is not dormant the germination percentage and pre-chill result should be within tolerances of each other. They generally will not come out exactly the same and should vary several percentages.

Example:

Germination: 87%

Pre-chill: 82%

Tolerance allowed: 7%

The two tests are within tolerance; essentially there is no difference between the two tests. If the pre-chill result is significantly lower then the overall quality of the lot is dropping. The conditions of the pre-chill will act as a stress on the seed instead of a dormancy breaking mechanism if the lot is of poor quality.

NEW YORK STATE SEED TESTING LABORATORY

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We invite you to contact us immediately if you have any questions or concerns about your test results. If you can not contact us during our office hours, please feel free to leave a message on our answering service.

Amount of Seed Needed and Costs for Seed Analysis of Non-Certified Seed*

<u>Type of Seed</u>	<u>Amount of Seed (lbs)</u>	<u>Purity Analysis</u>	<u>Germination</u>	<u>Combined Purity and Germination</u>
Barley	2	\$9.50	\$9.00	\$17.50
Bean	2	8.00	8.50	15.50
Buckwheat	2	8.00	8.50	15.50
Corn	2	8.00	8.50	15.50
Oats	2	9.50	9.00	17.50
Rye	2	9.50	9.00	17.50
Soybean	2	9.50	12.00	20.50
Triticale	2	9.50	9.00	17.50
Wheat	2	9.50	9.00	17.50

*Price for testing 500 grams of seed.

Amount of Seed Needed and Costs for Seed Analysis of Certified Seed

<u>Type of Seed</u>	<u>Amount of Seed (lbs)</u>	<u>Purity Analysis</u>	<u>Germination</u>	<u>Combined Purity and Germination</u>
Barley	6	\$13.00	\$10.00	\$22.00
Bean	5	8.50	8.50	16.00
Buckwheat	4	13.00	8.50	15.50
Corn	2	8.50	8.50	16.00
Oats	4	15.00	10.00	24.00
Rye	5	13.00	10.00	22.00
Soybean	2.5	12.00	12.00	23.00
Triticale	5	13.00	10.00	22.00
Wheat	7.5	13.00	10.00	22.00