

OREGON AGRICULTURAL COLLEGE

EXPERIMENT STATION

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PURITY TEST INFORMATION

by

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The kind of impurity is often more important than the amount. For example, a very small amount of dodder, even the amount allowed by law, is objectionable in alfalfa seed; St. Johns Wort (goat weed) is very objectionable in any seed used for pasture seeding; and marsh elder (death weed) is objectionable in meadow or pasture seeds. Buckhorn and sorrel are objectionable in small-seeded crops.

Seed with a purity test of 99 per cent may be undesirable if the 1 per cent is weeds (names of which are written in capital letters in the report). For example, if the 1 per cent impurity is seed of BUCKHORN it may mean as many as 2,250 seeds in a pound. Seeded at the rate of 10 pounds to the acre this would mean distributing 22,500 seeds on each acre. It is best, therefore, to know not only the percentage of impurity but also what the impurities are in the seed you use.

For your convenience the weed seeds considered objectionable and undesirable in the sample tested are written in CAPITAL LETTERS. The noxious weed seeds under the law are in CAPITAL LETTERS and underscored, and only a very limited amount are allowed by the law. (See Oregon Pure Seed Law.) The other foreign material is usually objectionable only because it reduces the amount of pure seed.

FAILURE TO SECURE REPRESENTATIVE SAMPLES IS THE MOST COMMON CAUSE OF VARIATIONS IN TESTS. Reports can be no more accurate than samples sent for test. Samples should be drawn from each sack, one to three samples with a sack "prod" or probe from top, middle and bottom of each sack is best. Otherwise, sacks should be opened and sampled by extending the hand well into the sack in several places and depositing the seed on cloth and examining for uniformity. Sacks showing lack of uniformity should be separated and tested as another lot. In sampling bulk seeds, five to seven samples should be taken in representative parts of the lot. If you do not have a probe, samples should be taken by hand or with a cup or similar vessel. These samples should be emptied onto a cloth and examined for uniformity. If the lot is found to be not uniform, more samples should be taken. The above samples drawn from a lot of seed are considered as a unit. These should be thoroughly mixed and a representative portion taken to send to the laboratory for testing. A more accurate test can be made with large samples than with small ones. The following are the minimum amounts which should be sent:
Small seeds like alfalfa and the grasses--two ounces, one handful.
Large seeds like wheat, corn, etc.--four ounces, two handfuls.

Seed used for a crop to be cut for seed should be free from foreign seed and should be sown on a weed-free seed bed. There is practically always a demand for clean seed at a fair price, while impure seed never finds a ready market at any price. Sections of Oregon are well adapted to producing clover, alfalfa and grass seeds, and seed production of these crops is usually a profitable business. However, profitable seed production in Oregon can be built only on a pure seed basis.

G. R. Hyslop,
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