

IOWA AGRICULTURAL EXPERIMENT STATION

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BOTANY AND PLANT PATHOLOGY SECTION

Test Your Clover and Timothy Seed

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Quite a number of queries reach the Botanical Section with reference to the quality of clover, alfalfa, alsike and timothy seeds.

The tests made show considerable variation. Many new seeds are being introduced with impure seed. The vitality in some cases is low.

There is great need that farmers should buy only seed which has been tested for germination and purity. If you want your seed tested without cost send small samples (2 ounces) to the Botanical Section of Iowa State College, Ames, Iowa.

On account of the present attractive prices, much clover and timothy seed of inferior grade is finding its way into the spring market. Such seed frequently contains dangerous weed seed, such as Canada thistle, quack grass, horsenettle, dodder, wild carrot and chicory, and the seed is often of low vitality. We have had some samples so old or poorly cared for that tests showed almost no germination. Some samples also, carry a heavy percentage of dirt and waste. These conditions emphasize the need of inspecting seed before buying it.

In case of our regular dealers thruout the state, interest in good seed may be depended upon; the difficulty is in reaching that considerable quantity of seed which comes into the market from miscellaneous sources, often seed of forgotten history, or seed from outside of the state, sent in by parties who fail to conform to the Iowa Seed Law.

HIGH COST OF IMPURE SEED.

In sound, bright, uniform seed a slight percentage of harmless impurities is negligible; when the impurity content is large however this first cost factor is worthy of consideration. But seed samples vary from sound seed to every degree of brown and shrunken seed, entire samples, or in mixture. Poor looking seed is sure to be of inferior quality of germination; much of it proves to be non-germinable, weak or dead seed. Use of such seed ensures the farmer sweeping loss in his crop, besides the slight loss in dollars at purchase.

Alsike and timothy seed mixtures are especially liable to in-

roduction of waste material and low grade clovers, since such adulteration is not readily apparent on casual inspection.

It is wise to know whether one is paying for good seeds or for weeds and waste. The best seed is the only economical seed to buy.

LEGAL STANDARDS OF PURITY AND GERMINATION (OR REQUIREMENT FOR SALE) FOR ICWA.

	Purity percentage	Germination percentage
Alfalfa -----	96	80
Alsike -----	90	75
Red Clover -----	92	80
Timothy -----	96	85

Superior or even acceptable seed reaches a much higher grade of excellence than is required by the legal standards; and much higher grades than the above are guaranteed for high grade seed, as indicated by the following table:

PERCENTAGE OF PURITY AND OF GERMINATION OF HIGH GRADE SEED (PREPARED BY THE SEED LABORATORY OF THE UNITED STATES DEPARTMENT OF AGRICULTURE)

	Purity percentage	Germination percentage
Alfalfa -----	99	95
Alsike -----	98	95
Red Clover -----	98	95
Timothy -----	99	96
Sweet Clover -----	98	90

THE ALSIKE TIMOTHY MIXTURE

Attention is especially called to a noticeable comparison observed the present season between those mixtures and samples of alsike only, or of timothy only. The mixture often contains an excess of impurity, carrying very frequently quantities of sorrel and nightflowering catchfly, and are an especial refuge for Canada thistle seed.

Germination results for immediately present season are about as follows:

- Timothy (separate samples) 96% (in alsike and timothy mixtures) 91%
- Alsike (separate samples) 88% (in alsike and timothy mixtures) 54%

These results while but partial indicate that inferior seeds are often used in the mixtures.