

Seed Mixture Impurities Show Wisdom of Buying Right

As Told by

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to

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“UNLESS you are willing to have something ‘put over on you,’ don’t buy cheap mixtures of grass seeds.”

This is the suggestion of A. L. Stone, of the agronomy department of Wisconsin’s College of Agriculture. Prof. Stone has made extensive studies of impurities found in grass seeds. He warns greenkeepers to select for golf courses only pure seeds sold by companies known to be reliable.

“Some companies,” he says, “make no secret of the fact that they include in their grass seeds a certain percentage of other materials, including chaff, when they make up mixtures for a cheap market. The public think they are getting more for their money when they receive a bulky package for a small sum. Therefore, it is easy to sell such seed.

From actual analyses and counts made by Prof. Stone some of the mixtures have been found to contain, besides a small amount of good grass seed, more than fifty percent of other materials. These include timothy, redtop chaff, Italian rye grass, meadow foxtail, and a greater or lesser amount of weed seed.

“Since timothy grows quickly,” explains Prof. Stone, “it may be an advantage at times to use it as a protective covering when more desirable grass seed cannot be sown early. Or it may be added to other grass seeds for the purpose of getting a quick green stand. When the other grasses come on, the timothy will die out of its own accord. In either case, pure timothy seed alone should be purchased. Timothy is not a permanent grass, however, and should never be regarded as such. The first season, a lawn sowed with it looks fairly well, but the second season it is hard to mow, has a bunched appearance, and is a decidedly inferior piece of

turf. The third season, if nothing has been done about it, the timothy will probably have been crowded out by weeds. Meadow foxtail is never a satisfactory addition to a grass mixture, and Italian rye grass is also among the cheaper grass seeds. Perennial Italian rye is found in almost every mixture. It is used in Great Britain, but it is not hardy in this country.”

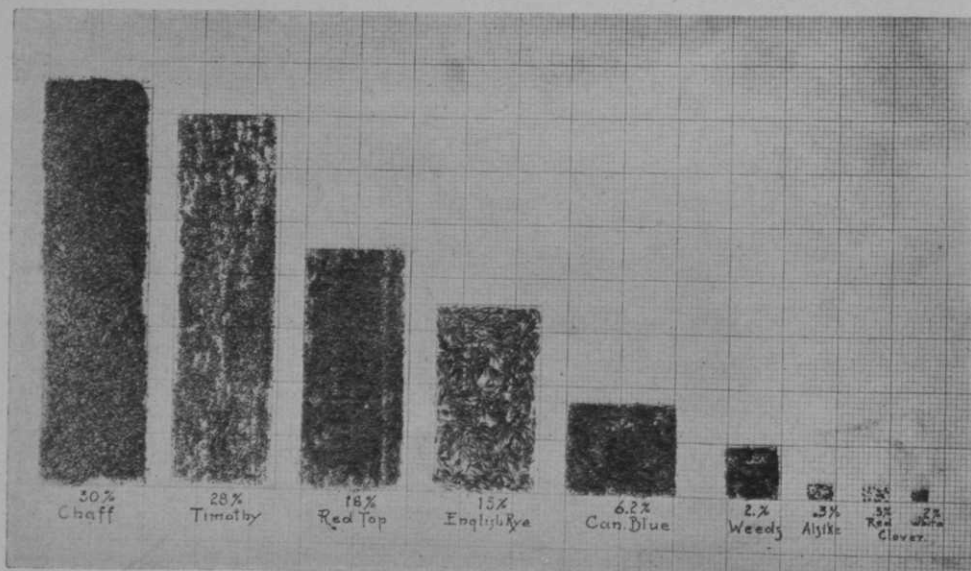
Guarding Against Adulterants.

In examining cheap mixtures of grass seeds, there have been found, besides timothy and other grasses of a temporary or unsatisfactory nature, many seeds of light weight. They can easily be detected by blowing into a handful of a cheap grass seed mixture, for they will scatter almost like chaff. In fact, some of it is nothing more than dried husks—the sweepings from the floor of the seed house, or the light weight seeds which have passed through the cleaning mill. Light weight seeds are no better than chaff, either, for they will never germinate. If seeds are old, the percentage of their growing power is usually small, too. This can be determined only by planting some of the seed to find out how much of it will start.

Since it is of great importance that the greens on golf courses be kept free from weeds, Prof. Stone considers it of great importance that greenkeepers have some acquaintance with the weeds that infest grasses and with the weed seeds that are commonly found in cheap grass seed mixtures.

Weed seeds that infest grasses are different from those that commonly appear in grains, he points out. Out of 75 kinds of weed seeds there were found to be only a half-dozen or so that are common to both kinds of plants.

Some of the weeds most common and



A cheap package of grass seed splits up, by weight, about as shown above. About 25 per cent (the redtop, Canada blue and the clovers) are what can be called first-class grass seed; the rest is waste.

most troublesome to grass lands are quack grass, witch grass, and crab grass. Quack grass probably needs no description; it is well known as one of the worst pests. Witch grass breaks off just below the head, and the wind carries the seed along. It is not so troublesome where grass has become established, but on new land it is a menace. Crab grass is almost as bad as quack grass in being hard to fight. Along in August it makes its appearance as purple spots in putting greens and fairways. If a joint touches the ground, it attaches itself and forms roots. Cutting with the mower does not destroy this weed, for it is impossible to get all portions, and it cannot be kept from going to seed.

Stink grass is of a gray-green color, forming mats and spots in greens. It produces multitudinous seeds, and fully fifty percent of the mixed grass seeds contain some of this pest.

Certain triangular seeds that look almost like those of buckwheat are commonly found in mixtures. These are the seeds of sheep sorrel, or yellow dock. This weed has arrow-shaped leaves, and it is a bad pest on grass lands. Especially if a soil is acid, is this weed quite sure to be found in a flourishing condition. It makes reddish-brown patches in a field. Even when the acidity of the soil has been

corrected with lime, this weed will thrive. It propagates on an underground stem, almost like quack grass.

Common chickweed and mouse ear chickweed, like quack grass, are troublesome although they are annuals, for they lie close to the ground. Through a long season they continue to bloom and mature seed, and both are very difficult to get rid of when once they are started.

One of the most easily recognized weed seeds in a mixture is that of peppergrass. This weed has a small flat reddish or orange colored seed.

The seeds of the common rough cinquefoil are very likely to be found in timothy seed and in grass seeds that have not been cleaned. This weed is an annual, and the seeds develop in any kind of sod. Cinquefoil is not so difficult as some to keep from seeding, but it goes to seed at the same time as grass, and because of that the seeds become mixed with the grass seed.

Plantain Pests.

The plantains that are common in grass lands are of two kinds. Black seed plantain with its broad leaves, purple colored near the base, is a large seed variety; common plantain has grayish green leaves, white near the base, and its seeds are small.

An exceedingly troublesome perennial in lawns is buckhorn. This weed has seeds that will live in the soil a long time. Neither do they decay when too wet, as most seeds do. Then, whenever conditions are right, they begin to grow. The seeds of buckhorn are of about the same size and weight as those of red clover, and for a long time they could not be detected among grass seeds. Finally, someone discovered that buckhorn seeds could be separated from clover seed by moistening all the seeds and mixing them with sawdust. The buckhorn seed has a mucilagenous covering which the clover does not have, so that, when damp, the weed seed sticks to the sawdust and can be sieved out of the other seeds.

Heal-all, the seed of which is found to some extent in mixtures, is a weed that reaches a height of one or one and one-half feet when grown. It is likely to form solid patches, for it spreads underground, and it is a perennial.

A greenkeeper should know what the sow thistle looks like, for greens are almost sure to be infested with this weed at some time. It maintains itself in pastures, where it is seldom eaten by animals, and the seeds are carried for miles by the winds. It is a bristly, leafy-stemmed, coarse weed, bearing yellow flowers in summer.

Seeds of the Canada thistle are also conveyed by the wind and may prove a

nuisance. This weed cannot maintain itself in grass land as well as in a field, but it sometimes gets started somehow.

In England, keepers of estates sometimes include yarrow in a seeding of grass. But in this country it is a bad grass land weed. It should be dug up wherever found and never allowed to go to seed.

Many grass seed mixtures contain ox-eye daisy seed, and in some places this becomes a pest. Yellow trefoil seeds are common, too; they look so much like alfalfa seeds, it is almost impossible to tell them apart. Although an annual, yellow trefoil is a persistent weed, and it has the same mean habit as crab grass and chickweed of lying close to the ground. The seeds of white cockle resemble those of white clover. This weed spreads entirely by its seeds. It is biennial, that is, it requires two years to produce seed.

A persistent little vine with a purplish blue blossom, called Creeping Charlie, trails along the ground. Its seeds are seldom seen, but it gets into the greens in some way, and it will run out the grass in those areas where it appears unless it is controlled.

"Since so many impurities are likely to exist in seeds that are mixed commercially, it is usually better for greenkeepers to buy grass seeds separately and mix them themselves when a mixture is needed," is Prof. Stone's belief.

California Greens Problems Cover Wide Range

By ARTHUR LANGTON

A WORK on California greenkeeping if done properly would present a symposium of all the problems which harass greenkeepers in all parts of the world. Added to this there would be included a goodly number peculiar to the Golden State which it has acquired in the course of time. This in spite of the fact that the region is one notorious for its equable climate. What is given here is merely a survey of conditions as they are and as they have developed.

In the old days, about ten years ago, the state was an ideal place for the greenkeeper. He could throw down some grass seed, almost any kind, and await developments. If he was located in the south he added as much water as he could obtain conveniently. Usually the seed came up without any more attention, thus justifying the somewhat extravagant statement fostered by enthusiastic chambers of commerce that "anything will grow in California." Almost anything will grow in