Ten grams of a seed sample are checked for weed and off-type seed in a lab.

**VARIETY PROTECTION**

European turf researchers made great strides in the 30’s with discovery of bluegrass apomixis by the Swedish researcher Munpzing and developed and released a few improved varieties. Some of the reasons for their gain in this period was variety protection between countries in Europe, a cutback in U.S. efforts during the depression, and eventually the World War II. The fact that the Arlington Turf Gardens was moved to Beltsville so that the Pentagon could be built there, was a clear sign of the setback caused by the war.

Before protective legislation from the USDA, a number of methods were tried to guard the seed from any interested seed grower. Growers of Manhattan perennial ryegrass, Penncross bentgrass, Merion Kentucky bluegrass, and other improved grasses formed cooperative associations to simplify supply lines and to promote their seed. Other tactics used to protect development costs were swelling the seed only in mixtures (Adikes did this with NK-100 in the 50's and 60's) and secrecy. Cooperatives still exist for some grasses, Manhattan Ryegrass Growers, Highland Bentgrass Growers, Seed Production and Introduction Corporation, and Merion Bluegrass Growers Association among others. Many of these associations are sponsoring research which may soon lead to the development of improved cultivars of their primary turfgrass, and which will provide them with exclusive rights under the Plant Variety Protection Act of 1970. Manhattan and Merion cultivars are expected within the next three years.

So, by 1960, technological aspects of seed production had been mastered. The ability to grow large quantities of high grade turf seed existed. The price of improved turfgrasses had become commercially attractive. However, concern existed for the lack of protection of improved turfgrass seed from a commercial standpoint. Grower associations worked with regional and national seed companies to control seed quality. States had begun to require certification of seed to insure the genetic integrity.

When protection was finally obtained from the 1970 Plant Variety Protection Act, a new importance was placed upon improved varieties. The differences between public and patented varieties were stressed by patent holders. Universities began to receive financial support for research into improved turfgrasses and some larger seed companies created their own research department. The seed company could now control production of its improved varieties released after 1970. The term proprietary turfgrass was coined.