

STATE OF MINNESOTA
DEPARTMENT OF AGRICULTURE

IN THE MATTER OF PROPOSED RULES)
OF THE DEPARTMENT OF AGRICULTURE) STATEMENT OF NEED AND
GOVERNING SEED POTATO PRODUCTION) REASONABLENESS
MINNESOTA RULES 1555.6850 - 1555.6852)

I. INTRODUCTION

The subject of this rulemaking is the proposed adoption by the Minnesota Department of Agriculture (MDA) of rules governing requirements for certification of seed potatoes. Minnesota Statutes, section 21.118, authorizes the Minnesota Department of Agriculture to adopt rules for the efficient administration and enforcement of the Minnesota Seed Potato Certification Law.

The department has determined that the proposed rules are noncontroversial in nature because they are supported by the industry as acceptable, and will bring Minnesota's requirements for certified seed potato production into conformity with other states. Because of the noncontroversial nature of these rules, the department has directed that the rulemaking proceedings be conducted in accordance with the statutory provisions governing the adoption of noncontroversial rules, Minnesota Statutes, section 14.22 to 14.28. Accordingly, the rulemaking proceedings on the proposed rules are governed by that statute and no hearing will be conducted on the proposed rules unless, on or before July 15, 1987, 25 or more persons submit to the Department a written request for such hearing. In accordance with the requirements of Minnesota Statutes, section 14.23, this Statement of Need and Reasonableness was prepared and completed prior to the date that the proposed rule was published by the State Register.

II. GENERAL OVERVIEW

In 1951, the State of Minnesota adopted rules 1555.6720 to 1555.6950, standards for the inspection, certification, production, and marketing of certified seed potatoes in the state of Minnesota. While these rules have served the certified seed potato industry well over the years, recent technological developments require that additional rules be adopted. The present certification system is based on the tuber unit technique, where seed stocks start out classified as Primary Foundation described in Part 1555.6850. From this level, seed moves to the Foundation class described in Part 1555.6860. Seed usually remains in the Foundation class for two years depending on the incidence of disease. Following the Foundation class, seed drops to the Certified class described in Part 1555.6840. In the Certified class, the disease tolerances are the highest and seed lots are not winter tested or eligible for certification planting by other growers. Usually, seed in the Certified class is sold to a commercial producer or for consumption.

The tuber unit technique, while effective, does have several inherent weaknesses. First, due to the nature of the tuber unit method, the same seed is actually replanted year after year. Even though this is done in

small quantities, under strict sanitation and close observation, tuber-borne bacterial diseases can be perpetuated, specifically bacterial ring rot and blackleg. Second, because the process starts with less than five pounds of tubers, the increase time often exceeds five years before an adequate volume of seed is available for an economic sale. Third, during the long increase period, seed stocks often become contaminated by disease. As a result, in the present potato industry, with new varieties in demand each year, the tuber unit system is simply not adequate.

An alternative to the tuber unit system is the Limited Generation system. This new system has been used by the seed potato industry for over five years now and has become a major component of seed potato certification programs in the states of Maine, Colorado, Wisconsin, and New York with other states rapidly adopting it. Briefly, in a Limited Generation system, seed potatoes start out as disease-free plantlets in sterile culture. The plantlets are rapidly increased in culture, cuttings taken and rooted in sterile soil. The rooted cuttings are then transferred to a greenhouse and allowed to develop and produce tubers. By this technique, in one season over 5,000 tubers can be generated from a single disease-free plantlet. The disease-free tubers are then increased in the field by conventional methods, but only for a fixed number of years. In this way, seed is never recycled as in the tuber unit system. The proposed rules governing a Limited Generation system would not displace any of the present rules governing seed potato certification, but rather, give the certified seed potato grower the option to incorporate this new technology.

III. NEED FOR AND REASONABLENESS FOR THE PROPOSED RULES

1555.6850 Requirements for Primary Foundation Certified Seed Potato Production.

The proposed amendment is reasonable because it will not diminish the quality of Minnesota Primary Foundation class seed potatoes or place additional restrictions on producers. Paragraph B of the current rule requires that Primary Foundation certified seed potatoes shall be the only potatoes grown on the farm. The proposed amendment would allow Limited Generation certified seed potatoes to be grown in addition to Primary Foundation certified seed potatoes on the same farm. Under this amendment, the existing standards for Primary Foundation certified seed potatoes would still be imposed, however, the producer would have the option to diversify and incorporate superior technology.

1555.6851 Requirements for Pre-Nuclear and Nuclear Certified Seed Potato Production.

The proposed rule is reasonable because it will not diminish the quality of Minnesota certified seed potatoes. Furthermore, it will not place additional restrictions on the general industry since production of Pre-Nuclear or Nuclear class certified seed potatoes is optional. This rule would give certified seed potato growers an alternative to the present tuber unit technique and the ability to increase new varieties in a shorter period of time. Most important, seed potatoes produced in accordance with this amendment will be of a higher quality than seed produced in accordance with Part 1555.6850.

The proposed rule would require that a seed lot grown as and intended to be Pre-Nuclear must be grown from plants tested and shown to be free of all major seed-borne pathogens. Pre-Nuclear seed potatoes must be produced in a greenhouse free from conditions of possible disease contamination and the crop must be tested prior to harvest to verify that no disease contamination has occurred. All production facilities and plants shall be inspected at least two times during the production cycle. A lot found to contain any diseased plants or varietal mixture will be rejected unless such plants are removed by the grower before the next inspection.

The other class of certified seed potatoes covered under this rule is Nuclear. Nuclear class certified seed potatoes must be grown from potatoes which have met the requirements of Pre-Nuclear class certified seed potatoes. Nuclear class certified seed is field grown. At field inspection, not more than one-tenth percent of any or all virus disease, excluding potato virus X, no blackleg, spindle tuber or varietal mixture shall be allowed. Each field shall be tested during the growing season for potato virus X. For a lot to be tagged "virus tested" no more than one percent of the plants tested may be infected with potato virus X. On farms which produce Pre-Nuclear or Nuclear class certified seed potatoes, Limited Generation or Primary Foundation shall be the only classes of certified seed potatoes grown. In addition, if bacterial ring rot is found in any field or lot, none of the remaining crop is eligible for certification planting.

1555.6852 Requirements for Generation One Through Generation Five Certified Seed Potato Production.

The proposed rule is reasonable and needed because it is sequential and allows for the increase of seed potatoes produced under Part 1555.6851. Certified seed potatoes produced in accordance with this rule must meet all the requirements of 1555.6750 to 1555.6840, as well as the following. Each lot of Generation One, Generation Two, and Generation Three seed shall be tested for potato virus X. For a lot to be tagged "virus tested", no more than three percent of the plants tested may be infected with potato virus X. A lot to be certified as Generation One must be grown from Nuclear class certified seed potatoes and no more than two-tenths percent of any or all virus disease or blackleg and no varietal mixture is allowed at field inspection. Generation Two certified seed must be grown from Generation One class certified seed potatoes and no more than two-tenths percent of any or all virus disease, five-tenths percent blackleg and no varietal mixture will be allowed. Generation Three certified seed must be grown from Generation Two class certified seed and no more than three-tenths percent of any or all virus disease, one percent blackleg and one-tenth percent varietal mixture is allowed. Generation Four class certified seed potatoes must be grown from Generation Three seed potatoes and no more than three-tenths percent of any or all virus diseases or one-tenth varietal mixture is allowed. The final class, Generation Five seed potatoes must be grown from Generation Four certified seed potatoes. Not more than four-tenths percent of any or all virus disease or two-tenths varietal mixture is allowed on any field inspection. Generation Five seed is not winter tested and not eligible for certification planting the following year. This amendment insures high standards for certified seed potatoes and is consistent with standards for Limited Generation seed produced in neighboring states.

IV. SMALL BUSINESS IMPACT OF THE PROPOSED AMENDMENT

As prescribed by Minnesota Statutes, section 14.115, subdivision 1 and 2, the Department of Agriculture has considered the degree of impact the proposed rules will have on the certified seed potato industry.

The department has determined that the proposed rules would raise the standards and quality of Minnesota certified seed potatoes and place no additional economic restraints or demands on the general industry. These rules would be a positive benefit to Minnesota certified seed potato producers and enhance their ability to compete in the marketplace.