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## **Effects of Variety Approval Policy**

In 1973, an appeals court in Wyoming upheld the judgement of a lower court which said, in part, that a company could and should set minimum and reasonable standards of performance for varieties. These standards must be consistent with generally accepted factors of production for the area, and should be for the mutual benefit of growers and processors.

The decision set in motion the variety evaluation and approval system currently in operation for each sugarbeet growing area. Although each area may have different requirements for minimum levels of performance, the system has proven effective in the selection and identification of superior genotypes.

This paper will briefly discuss the effects of the variety approval system at SMSC as an example of general effects throughout the industry.

The general testing procedures to obtain discriminating data for varieties have been presented by other people at this meeting. The following series of slides will show the effects of the variety approval system at SMSC.

The first table shows the number of approved varieties for each

year and the mean of approved for tons/acre, % sugar and % LTM. The number of approved varieties ranged from 9-24 with as many as 10 new varieties introduced in one year. The general trend shows that yields were held nearly constant while quality as defined by % sugar and % LTM shows a definite improvement.

Of the 15 varieties approved in 1981, over half were replaced by 1985.

During this 11 year time frame, the approval policy was modified at least three times in order to more accurately correspond to cooperative policies and production practices.

For example, leaf spot resistance became more critical following the development of resistance strains of cercospora to TBZ fungicides in 1981. Subsequent changes in the variety approval system were necessary to correspond to the payment system adopted by SMSC, in which growers were encouraged to produce high quality beets and receive appropriate payments for extraction.

As a matter of timing, the variety approval policy was actually set in place before the grower payment reflected a change to extraction. The point should be that the variety approval system should compliment the grower payment policy.

The next six slides show line charts of the three-year moving averages for the mean of approved varieties from 1981 to 1991. There is a general trend for stable or slight increase in T/A and recoverable

sugar per acre. Recoverable sugar per ton shows a definite improvement as also reflected in the increase in sugar content and lower % loss to molasses. Average leaf spot ratings for the approved varieties have ranged between 4.6 - 4.9 since 1983.