The Challenges of an Expanding Beet Sugar Industry G. D. MANUEL¹

Mr. President, distinguished guests of the Society, fellow technologists.

At the outset let me remind you of one point. Although my membership in the ASSBT dates back to 1942, and I have frequently been involved in various sections of the Society as well as some of its politics, this is my first opportunity to address the entire body in open session.

Perhaps after my remarks today, future invitations to speak to this august body will again stipulate that I confine my remarks to Section meetings from which one can leave without causing embarassment to self or speaker.

In any event, I am pleased to participate in this general session of the 13th biennial meeting of the Society, and it is always a source of personal pleasure for me to meet with so many old friends at these gatherings.

Since we are friends, I hope you will bear with me if I exercise a point of personal privilege and range farther afield than others who have addressed you during this general session.

First of all, I want to offer congratulations. I feel that our industry's technical gains have been outstanding, and you who are members of the Society have been the prime movers in making these gains. On the farm we have progressed from high hand labor requirements to a comparatively high degree of mechanization. Our land is producing more beets and more sugar per acre. Our farmers now plant monogerm seed which has further increased our mechanical efficiency. Plant breeding has given us disease resistance that has helped overcome diseases that can plague our fields. In our factories we can chart reduced production costs and we can boast of automated processes. And, while a number of our factories were built many years ago, their equipment is now, for the most part, the most modern. And, more importantly we are producing a product of unsurpassed quality.

The year I was attending my first meeting of the Society, 1942, the beet sugar industry produced 1,725,000 tons of sugar from 953,000 acres of sugar beets. In 1963 it is estimated that the industry will produce 3,100,000 tons of sugar from 1,236,000 acres. This is a notable improvement in yield per acre.

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The 1942 crop was processed through 82 factories while the 1963 crop is being processed through 60 factories. This marked decline in the number of factories necessary to process the crop speaks for bigger and more efficient factory operation.

These farm and factory accomplishments are most noteworthy, and many people have been involved in these changes and all of you are to be congratulated on what has been accomplished. But, I would caution you that we cannot rest on our laurels. We need only to analyze where we stand today and where we must go from here.

While our sugar beet harvest is almost completely mechanized, I do not think we should concede that it is perfect. Better trash separation, better topping and other harvest aspects still need to be studied. While yields are high, these high yields have given rise to new problems in beet quality and in processing. Where we were once only concerned with convincing growers to use nitrogen, we now must caution them against overusage. All of us who are concerned with the study of disease and disease resistance know that the job is never done. Where in 1942 curly top and leaf spot were the prime topics for discussion, virus yellows is now the threat we must struggle against to keep our industry healthy. I am sure that other problems will arise through the years to tax the capacity and ingenuity of all of you because agriculture is a continually changing industry due to the fact that nature itself is unpredictable.

What all this adds up to, really, is that your jobs are just as important, just as challenging, and just as rewarding today as they were twenty years ago. Our industry must continue to improve or fall behind because now, more than ever before, the domestic industry is influenced by and exerts influence on the world sugar picture.

I think the circumstances surrounding 1963 brought this point home to a lot of people. Last year for the first time many people outside our industry came to recognize the importance of this domestic beet industry. When world sugar suddenly turned up scarce, it was our industry that was able to expand its production by some 20% and in so doing contributed a degree of stability to an otherwise widely fluctuating market. This sudden expansion of our industry, accomplished without too great a strain, was possible because of the cumulative technological advances in agriculture and processing.

Now that we have attained a higher level of production, what is ahead for us? In our own country, based solely on projected population trends, our annual consumption of sugar by 1980

will reach 12.5 million tons. In just 25 years our American consumers will annually require 14 million tons of sugar.

With this increased consumption in this country, we also look for even more rapid increases in consumption in other parts of the world. Some of the countries which are now, for the first time emerging economically are demanding of the world sugar market needs such as we have never known. Average free world per capita consumption in 1961 was only 43 pounds per person as compared to about 100 pounds in the United States. In some of the underdeveloped countries the consumption is now less than 10 pounds per person. As these countries develop, the potential for increased consumption of sugar appears almost unlimited.

Authorities generally agree that we should expect consumption to increase at the rate of approximately 3 per cent per year if supplies are available. At this rate, a conservative estimate of world sugar consumption in only 25 years will be between 100 and 125 million tons. This means, by 1989, the world sugar industry, if it is to meet minimum world sugar demand must produce at least 100 per cent more sugar than is being produced today.

This increase in world sugar needs will keep some of our foreign suppliers busy, meaning that the beet industry certainly must prepare to meet its share of requirements.

This is, indeed, a real challenge to the entire sugar industry, and management, reflecting on that challenge, must turn to you people to point the way.

I should point out that the straight line projections on which to base consumption estimates may not be valid unless your technical skills can keep the cost-price ratio to our advantage. Indeed, the price increases of the past year actually slowed down the expected increase in sugar usage and, at the same time, opened the door for other types of sweeteners. In 1963 the corn sweeteners and other types of sweeteners scored impressive gains at our expense. Last year, for instance, the expected normal marketing increase for all sweeteners was 175,000 tons. Of this expected increase the deliveries of corn sweeteners showed an overall gain of 90,000 tons during the first three quarters of 1963.

Such growth by competitors cannot and should not be overlooked by our industry. Our prices must be competitive or certainly there will be adverse effects on our long-term growth.

I should also mention that with the higher prices realized in 1963, many people have become interested in beet sugar pro-

duction; and, at a recent hearing in Washington, twenty-three applications were received from various states for creation of new facilities to further expand our industry. Both the new and old facilities should be prepared to face lower prices in the future or we are not expanding on a sound basis.

I feel that the real challenge facing all of us today is to make this expanding industry as low in production costs as possible which can be through greater mechanization, higher yields and more efficient handling of the crop. We must also have higher quality in our beets to maintain our plant operations at reasonable levels. This may sound like a simple task, but I think all of us here in this room are involved in this task because it affects all phases of our industry.

I feel confident that you can do the job and that our industry will make greater strides in the next twenty years than it has during the last twenty.