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# Proceedings



# OUTLOOK '90

66th Agricultural Outlook Conference  
U.S. Department of Agriculture  
Washington, D.C.  
November 28 - November 30, 1989



Outlook '90, Session #20

For Release: November 29, 1989

**THE CHANGING STRUCTURE OF THE U.S. SWEETENER INDUSTRY**

William C. Shanley, III  
President and Chief Executive Officer  
Amstar Sugar Corporation

First of all, I want to thank the Department of Agriculture, the organizers of this conference and our moderator, Bob Barry, for the invitation to address you this afternoon. The Agricultural Outlook Conference is always an excellent forum for an exchange of views on the changing face of American agriculture and I am grateful for the opportunity to be included on the program.

The topic on which I have been asked to speak, "The Changing Structure of the U.S. Sweetener Industry," is indeed a timely one. I have made the sugar business, specifically the cane sugar refining business, my career for the past forty years. It has been in the last fifteen of those forty years, however, that I have seen far more astonishing changes in the structure of our industry than in the preceding two and a half decades.

My own company, Amstar Sugar Corporation, has been caught in the maelstrom of these changes, not once but several times. Amstar Sugar Corporation, known for many years as the American Sugar Refining Company, has been in business in the United States since far back in the nineteenth century. Our refinery in Brooklyn has been refining cane sugar on the same site since 1893. In the past decade, however, the company has undergone a series of changes that mirror, in many ways, what has been happening to the U.S.

sweetener industry and, by extension, to the whole of American industry and agriculture.

Let me review the major changes that Amstar has undergone in the recent past. Over the past ten years, Amstar has gone through the following changes in structure: the permanent closure of two of its five refineries (in Philadelphia and Boston), two leveraged buyouts, the sale of its corn sweetener and beet sugar operations, and most recently, in December 1988, the sale of the company to Tate and Lyle, the British-based sugar company that also owns, in the United States, A.E. Staley, a major corn sweetener producer and Western Sugar, a beet sugar processor. The fact that Amstar Sugar is now part of a business entity with operations in all segments of the U.S. sweetener industry gives me, I hope, a certain understanding of the dynamics of the whole sweetener market, rather than just the more provincial viewpoint of a cane sugar refiner. It is from that broader perspective that I will address my remarks.

Over the past ten years, American industry and agriculture across the board have undergone substantial changes. In agriculture, it has represented an accelerating shift from the family farm to agribusiness enterprises. In industry and agriculture, both, there has been a keen and, probably, long-overdue, emphasis on productivity. My own company, for example, produces roughly the same volume of sugar annually as it did a decade ago, but with approximately half the labor force. The introduction of such efficiencies has been representative of both the cane refining and beet processing industries.

The reason that I chose fifteen years ago as the point at which the sweetener industry began to undergo such massive changes is that 1974 was the year of two highly significant, and interrelated, events, namely, the great bull market in world sugar

prices which peaked at 63 cents per pound, and the expiration of the Sugar Act. The Sugar Act was a piece of legislation, dating from 1933, under which the Department of Agriculture regulated domestic sugar production, imports, distribution and price. In short, it was a comprehensive managed-supply system.

High world prices and the introduction of a free market for sugar in the United States gave birth to the high fructose corn syrup industry. From its development in the mid-1970's to the present, HFCS has taken over nearly half of the combined sugar/HFCS market, mainly by replacing sugar in the soft drink industry.

A look at the statistics makes very clear that the development of the HFCS market occurred at the expense of the U.S. cane sugar refining industry. Since 1974, beet sugar output over time has remained fairly stable at between three and four million tons per annum, given the yearly crop variations based on weather conditions. Cane refiners' volume, in contrast, has declined from about eight million tons in the early seventies to around four and a half million tons today. Besides this loss in absolute volume, growth in the sweetener market of about four million tons, which mainly reflects increased soft drink sales, was also preempted by the HFCS industry.

The result has been, over the past decade, a massive restructuring of the cane sugar refining industry. Ten refineries have been shut down permanently and sold for scrap, three longtime refining companies have gone out of business altogether and, in total, about 40% of cane sugar refining capacity has been permanently lost. Besides Amstar, now linked with both HFCS and beet sugar companies, two other refiners have bought beet sugar companies and another is a subsidiary of a corn wet-miller. Of the six remaining cane refining companies in the United States, only two still stand alone.

The producing side of the sugar industry, beet processors and domestic raw cane mills, has undergone significant rationalization and undertaken considerable process efficiencies in recent years. The number of individual beet processing factories has declined from 56 to 36, especially during the late 1970's when the existence of a relatively free market in the United States put pressure on the beet industry to shake out the least efficient operations. More recently, in the 1980's, the surviving beet processing plants have implemented an impressive array of process efficiencies that have boosted yields. According to USDA statistics, process efficiencies have increased sugar beet recovery rates by 6% over the past ten years, and further improvements in this area are expected. Despite consolidation in the beet processing industry, total beet sugar output has remained quite constant. In 1976, beet sugar production reached four million tons. In 1987, with twenty fewer factories in operation, the same level of output was again achieved.

The cane milling industry in Florida, Hawaii, Louisiana and Texas has experienced a similar shakeout. The number of cane mills has been reduced by about 40%, from about 70 to 40, since the mid-1970's, with most of the contraction occurring in Louisiana where a number of older small mills were shut down and their production consolidated into larger, more efficient, ones. Average crushing capacity per mill has risen impressively. Total domestic raw cane sugar output has increased by about 25-30% over the past decade.

While all segments of the domestic sugar industry have undergone substantial modernization and restructuring to produce greater efficiencies, it is important to underline the fact that, in the United States, only the cane sugar refining industry has experienced a net loss in capacity and sales volume, and a



significant one at that. It has borne the full brunt of the rise of the high fructose corn syrup industry.

Looking at the current condition of the U.S. sweetener industry, when all these changes are factored in, it is my assessment that the industry is now a healthy, stable and well-balanced one -- a condition that now applies to all segments, cane and beet growers and processors, cane sugar refiners and corn sweetener producers. The cane refining industry, having undergone its painful rationalization, is now operating at close to capacity. Cane sugar production has just about reached its peak, a subject about which I will have more to say later. The beet processing industry, despite the drought of 1988 and its after effects in the summer of 1989, is on firm footing with a healthy capacity/utilization level. (With respect to the beet sugar industry, my observations are shared by Jack Lackman, Vice President of American Crystal, who said in a recent speech that beet sugar "processing facilities are currently operating near optimum utilization rates in all sectors of the industry.") The HFCS industry is, after fifteen years of expansion, now a mature industry, having achieved maximum product substitution. Its continued growth is linked, instead, to the soft drink market.

After listening to this chronicle of dramatic restructuring that has already occurred in the U.S. sweetener market, you may well ask yourselves, "What is next? What additional changes could the future possibly still hold in store?" I would like, now, to turn to what I believe are three important considerations for the future. They are:

- 1) The increasing importance of the cane sugar refining industry in assuring the availability of sugar to the American consumer;

- 2) The potential for declining domestic cane sugar production and its effect on the cane refining industry and U.S. trade policy;
- 3) The impact of glasnost on U.S. foreign policy with respect to sugar.

THE INCREASING IMPORTANCE OF THE CANE SUGAR REFINING  
INDUSTRY IN ASSURING THE AVAILABILITY OF SUGAR TO THE  
AMERICAN CONSUMER

Traditionally, the cane sugar refining industry in the United States has provided flexibility to the domestic sugar supply situation by either increasing output or throttling back on a year-to-year basis to make up the difference between domestic beet sugar production and total sugar demand. Whether we in the refining business like it or not, our function has been and will continue to be that of a residual supplier. This is a very important function in maintaining adequate and consistent supplies of refined sugar to U.S. food manufacturers and to the American consumer.

We all know that the beet sugar industry is subject to considerable vagaries of weather from year to year, whether it be drought, too much rain, freezes or diseases with such exotic names as virus yellows or curly top. The crop of 1988 is a good case in point. That year, the Department of Agriculture reported an increase in harvested acreage of 4% over the previous crop year. You will remember that 1987's crop was the bumper year when the crop reached nearly four million short tons, raw value. With a repeat of the excellent weather that occurred during the planting and growing season of 1987, the next crop could well have been expected to exceed four million tons. Then drought set in throughout the beet-growing regions and 500,000 tons, or nearly 15%

of the anticipated crop, was lost.

Fortunately, the cane refining industry was able to pick up the slack. It was able to import an additional 500,000 tons of raw sugar from the world market, refine it and deliver it to the consumer in a timely fashion. It was able to do this because there was sufficient refining capacity still in existence to add another half million tons to its annual output on very short notice.

The cane sugar refining industry ran at about 90% of capacity on average during 1989, to compensate for the short beet crop. With the beet crop for the 1989 season once again damaged by the lingering effects of the drought (the outturn now looks to be about 3,600,000 short tons, raw value), cane refiners will once again in 1990 be operating close to capacity. Remember that an annual capacity/utilization rate of about 90% means that on a seasonal basis, especially during the peak-demand summer months, the cane sugar refining industry is in effect operating at more like full capacity.

The abundance of raw sugar on the world market and the multitude of exporting countries means that cane refiners always have available sufficient raw materials to meet the requirements of American consumers. Even during periods of tight world raw sugar supplies, such as in 1974, there was always raw sugar available in the world market, albeit at a high price. U.S. refiners paid that price in order to keep consistent supplies of refined sugar available to American households and food manufacturing companies.

There is a lesson to be learned here. During the two most recent Farm Acts, those of 1981 and 1985, the expressed intention of the legislation was to insure supplies of food and fiber to the American people by supporting domestic agricultural

production, including sugar. In fact, the 1985 law was entitled, "The Food Security Act." Nevertheless, neither Act took into consideration the role of the U.S. cane sugar refining industry in assuring the continuity of sugar supplies to the consumer. In fact, since the inception of the 1981 Farm Act and the imposition of import quotas, ten refineries have closed their doors permanently.

In the short run, this has been a problem shouldered by the cane sugar refining industry; in the longer run, it is a problem that will threaten the availability of refined sugar supplies in the United States.

Of course, there is another potential source available for refined sugar supplies in the event of a short beet crop. Refined beet sugar from the European Community could be imported in quantity into the United States. I seriously doubt, however, whether domestic growers and processors of beet and cane or industrial sugar users in this country would welcome that occurrence. Domestic growers would not want to risk the chance that EEC whites would overwhelm the domestic sugar market. Industrial users would have to contend with uncertainty of supply, untimely shipments and quality and specification standards different than those to which they are accustomed.

Perhaps even more important are the trade policy implications. I question whether our policymakers want EEC refined sugar, which is produced and exported under an elaborate subsidy system, to flood U.S. markets.

These are important long-range considerations that must be kept in mind when the new Farm Bill comes up for deliberation next year. It is important that cane sugar refiners be recognized in the new Farm Bill as an important part of the domestic sugar

industry and that the Sugar Title of the new Farm Bill be composed in such a way that the decline in cane refining capacity that was forced by the 1981 and 1985 Farm Acts not be allowed to continue unchecked.

Without being too specific, there are two basic ways in which the U.S. cane sugar refining industry can be provided for in the new Farm Bill. Neither of these suggestions is mutually exclusive; in fact, they could both be enacted. One is the establishment of a minimum import quota, that is, a quantity below which the quota would not be allowed to fall. I suggest that an appropriate level ought to be at least 1.2 million metric tons. Such a number is reflective of the level at which the quota has been set for the average of the four most recent years (including the 1989/90 quota year). It is also a number that, combined with the current level of domestic raw cane sugar production (about 3.4 million tons), would provide cane refiners with an adequate supply of raw material. In other words, it would not force more refinery closures, an eventuality that a declining quota would surely induce. I realize that this recommendation leads to other Farm Bill considerations, such as potential marketing allocations. It is not my intention this afternoon, however, to offer a detailed Farm Bill program.

My second recommendation concerns the re-export business. Cane refiners do a certain amount of re-export business, that is, importing world priced raw sugar for refining for re-export. This business has been important for refiners as a means to utilize otherwise idle capacity when it is not required for the production of refined cane sugar to meet domestic demand in the event of a small beet crop. Without a viable re-export business, cane refiners' capacity/utilization during years of peak beet sugar output can fall to dangerously low levels. That leads to refinery closures. Optimally, the Congress should consider some sort of re-export program within the context of the Sugar Title of the Farm

Bill. At the very least, the Congress should recognize the importance of re-exports not only to the domestic sugar program but also to our balance of trade. It is important that our Government not take steps, either intentionally or through mismanagement, to curtail refiners' re-export business. This has happened in the past; it should not be allowed to happen again.

THE POTENTIAL FOR DECLINING DOMESTIC CANE SUGAR PRODUCTION AND ITS EFFECT ON THE CANE REFINING INDUSTRY AND U.S. TRADE POLICY

Over the past decade, domestic cane and beet production have both experienced growth. Beet sugar output has grown by about 40% since the early 1980's, with the exact number varying between 30% and 50% depending upon which base years are used. Raw cane sugar production has also risen, although not so dramatically. The rate of growth has been between 25-30%.

I do not foresee any significant expansion in beet sugar output in the future other than drought-related recovery for the simple reason that beet processing facilities are currently operating at near-peak capacity. I do not expect to see any major capital investment in the industry. Any growth in beet sugar output will be incremental, related to ongoing improvement in process efficiencies.

On the other hand, I am concerned that domestic raw cane sugar production may actually decline over the next five to ten years. Of the four sugarcane states, Louisiana is the only one that may expand acreage at all and any such increases are likely to be modest. Texas will probably hold the line at its current level of production. The Hawaiian crop is already in the process of decline. Over the past several years, mills have closed and acreage has been reduced as land and production costs have made alternative land use more economically justifiable. Poor weather

this season has exacerbated the decline in production, but it is not the only reason. I expect Hawaiian acreage to continue on the decline. The largest cane sugar producer, Florida, has probably just about reached its peak production capability, and I expect decline in this state over time. Land use questions and environmental concerns are poised to exert downward pressure on acreage levels.

For the cane sugar refining industry, declining domestic raw cane sugar output means that greater reliance on imported raws as a proportion of total throughput may be forthcoming. This outcome has important foreign policy implications. After years of shrinking access to the U.S. market, foreign exporters may once again come to view our market as an important outlet for their raw sugar. The reopening of the U.S. market to imported raws, which probably can be anticipated even now, should be noted by our trade negotiators as they prepare for the next round of GATT talks. Long-term, the United States has the opportunity to move toward freer trade in sugar without damaging domestic sugar-growing interests. Increased U.S. offtake from the world market may have the effect of strengthening world values over time, making the U.S. price support program in the long run unnecessary as a tool in assuring a comfortable level of domestically-grown sugar production.

The trend toward declining domestic sugarcane production ought to be taken into consideration by lawmakers as they consider the Farm Bill of 1990. Along with the establishment of a minimum import quota, provision should be made to assure that an adequate level of raw cane sugar supplies remain available to refiners, whether the source be domestic or foreign.

THE IMPACT OF GLASNOST ON U.S. FOREIGN POLICY WITH  
RESPECT TO SUGAR

Is it possible that the current ferment in the Soviet Union and Eastern Europe will have an impact on the sugar market? I believe that this will be the case. There are two areas of change in the Eastern Bloc that are likely to have ripple effects reaching even as far as U.S. foreign policy with respect to sugar. Those two areas are: perestroika, that is, the restructuring of the Soviet economy, including agriculture; and the loosening of the relationship between the Soviet Union and its satellite countries. Of course, these two movements are interrelated.

First, perestroika. The reorganization and modernization of Soviet agriculture in order to increase productivity are essential to their economic and social well being. How can they expect to achieve economic health while so much foreign exchange is expended on the importation of agricultural products, including sugar. Even at world prices, and it is commonly believed that the Soviet Union pays far above the world price for Cuban sugar, annual Soviet expenditures for sugar imports amounted to something in excess of one billion dollars over the past twelve months. The Soviet Union has some of the world's best soil in the Ukraine and there is no reason why, with better management, they could not become self-sufficient in sugar over time. For comparison sake, look at how India's green revolution boosted sugar production as well as that of the grains. As the Soviet Union begins to approach self-sufficiency in sugar, Cuba will have to seek markets elsewhere for their sugar exports. What more logical market is there than the United States?

I believe that the Soviet Union is in a much better position to make rapid progress with respect to agricultural output



than with building up its industrial, particularly its consumer goods, sector. It has the most important inputs, land and labor, already available. It would take far less capital investment to improve the incentive structure for agricultural production than would be necessary to build an array of specialized light industries. It would be a much better choice to focus on improvements in agriculture, with the aim of becoming net exporters, and use the hard currency thus earned to import consumer goods. I expect that this is the direction that the Soviet leadership will ultimately choose.

The implications for sugar are tremendous. The USSR currently produces about nine million tons of beet sugar annually. With domestic consumption at about fourteen million tons, they must import about five million tons. Cuba supplies about three million tons annually, with the balance coming from the world market. If the Soviet Union were to keep its present sugarbeet acreage constant, but improved its yields to even half those of France, for example, they would switch from net importers to net exporters, producing over fifteen million tons of sugar per year.

Interrelated with the issue of self-sufficiency is the prospect of the loosening of economic (and maybe even political) ties between the Soviet Union and Cuba, just as Eastern Europe is beginning to move away from Soviet hegemony. The relationship between the Soviet Union and Cuba with respect to sugar exports is burdensome for both parties. The Soviet Union pays high prices for its sugar imports from Cuba, plus the additional burden of heavy freight costs. Cuba, on the other hand, owes considerable obligations to the Soviet Union, especially political and military ones. From an economic point of view, such a relationship is detrimental to both parties. Neither the Soviet Union nor Cuba will be successful in building up their economies, something they are both under pressure to do by their populations, while trade

decisions continue to be based on such uneconomic factors. Again, Cuba is likely to look toward the United States as an attractive alternative market for its principal foreign-exchange earning export, namely raw cane sugar.

I do not presume in this speech to recommend foreign policy decisions for our government with respect to Cuba, nor do I intend to attempt to read the mind of our diplomats at the Department of State. Nevertheless, as a member of the U.S. cane sugar refining industry, I think it is incumbent upon me to at least observe that, if foreign policy considerations made the entry of Cuban sugar into the United States a useful option, it would require the existence of a healthy U.S. cane sugar refining industry to stand ready to process that raw sugar and make such a foreign policy initiative feasible.

I have covered quite a bit of territory in this speech, from Hawaii, to Washington, to the European Community, to Havana, to Moscow. I hope it hasn't been too much. I would like to leave you with two thoughts:

- 1) After a decade of considerable restructuring in the U.S. sweetener industry, all segments of the industry (cane, beet, corn) are stable and healthy;
- 2) It is important that the Sugar Title of the new Farm Bill be constructed in such a way as to preserve this stability and health, for all segments of the industry including cane sugar refiners. It is important for the American consumer, and it is important for those in government responsible for the formulation of U.S. foreign policy.