

JOINT ASSCT MEETING

FLORIDA AND LOUISIANA DIVISIONS

June 25-27, 2003
San Destin, Florida

Notes on proceedings by Tony Parris

The meeting began with a business session and the reports from the presidents of the Louisiana and Florida divisions. The reports are given in the June 2003 edition of the Sugar Journal. Following the Presidents reports, was an address by the keynote speaker, Dr. Andrew Schmitz. Dr. Schmitz spoke about his view on economics driving the World Agricultural markets. He said that he had recently returned from Europe where he had been attending meetings on trade with Europe and he was left with the impression that Europe really did not intend to reduce the funding of its agricultural programs, so he saw no real change to the agricultural trade issues with Europe. He said that farmers in the new European member nations would also qualify for agricultural funding by the European government and, because their agricultural industries stood to show the most improvement from such funding, he expected that agricultural production in Europe was likely to show increases rather than be regulated to fulfil the market which it serves. Dr. Schmitz went on to talk about the recent work he has done on the mechanism which Brazil uses to determine how it directs the output from its sugarcane crop from ethanol to sugar and from sugar to ethanol. This study was recently reported in the International Sugar Journal. Again, Dr. Schmitz pointed out that trading of sugar on an international basis was very unlikely to ever be removed from the influences of individual governments. He suggested that the US industry might be advised to take note of these programs provided by the governments of other competing nations so that the US trade representatives could be kept fully informed when they come to negotiate trade issues involving sugar.

Dr. Schmitz referred to the vertical integration that has occurred with the Florida industry where the growers now own a share in the refining operations and have a direct connection with the product that is being sold to the consumer and industrial users. He mentioned a possible shift in the way that farm commodities are viewed today compared with years ago. He gave the impression that he felt that the true trading was taking place with the products derived from the basic commodities and saw this as a further sign of the need for the producer to become involved in the form of the product which is sold to customers.

Dr. Schmitz spoke about the influence of the HFCS on the raw sugar market. He said that large multi-national companies, might not view the need for supporting a domestic agricultural base in the same way as individual growers might. He went on to talk about the likelihood of other countries producing HFCS. He said there are some who think that HFCS will dominate the sweetener market elsewhere in the world, as it has done in the USA, but his models did not suggest this could happen. He felt that areas which are presently producing sugar from sugarcane would continue to do so in the future. He also mentioned alcohol production from sugarcane and thought that corn would continue to be the dominant agricultural source of alcohol.

Dr. Schmitz talked a little on Genetically Modified Organisms (GMOs), which raised the question as to whether some crops would be grown for the traditional food they produce or whether they might be grown to produce other food ingredients.

While Dr. Schmitz presentation offered many insights to the possible ways that the sugar market might develop in the future, there were the inevitable questions as to how this all related to the way business is being done today within the industry.

Dr. Schmitz also announced a new book which he has authored. Titles of his recent books include “Government Policy & Farmland Markets: Implications of the New Economy”, September 2003, and “Sugar and Related Sweetener Markets: International Perspectives”, June 2003.

The Manufacturing and Agricultural Sessions were held over the remainder of this day and during the morning of June 27, 2003. Abstracts of these presentations are given in the June 2003 edition of the Sugar Journal. For the second year, the Manufacturing Session, on the last day, was organized as a “round table” session. Technologists from the Texas, Louisiana and Florida industries met in an informal session to discuss an agenda which was chaired by Tommy Thibodeaux and was structured as follows:

Group 1 topic was on “Standards” and the key participants were: Tere Johnson, Trevor Endres, Members of the ASSCT Sugar Cane Industry Standardization (SCIS) Committee, Dr. Peter Rein and Ron Destefano. The topics were: “An Update On The Committee For Standardization”. How to proceed with the task of standardizing the methods used for analyses and reporting for the mainland cane sugar industries?

Group 2 topic was on “Raw Materials and Product Quality”, which included “Raw Sugar Quality”, “Process Performance Monitoring” and “Cane Quality”. The key participants were: Dr. Stephen Clarke, Trevor Endres, Dr. Peter Rein, Tere Johnson, Tony Parris, Dr. Harold Birkett and Windell Jackson. The topics included: will the changing number of refineries result in a review of quality factors for raw sugar? What is involved in convincing operating personnel and management that there are significant limitations to the way performance evaluations are currently perceived? Is NIR emerging as a useful tool in measuring performance? Processing the highest quality sugar cane will always be crucial to the economic viability of raw sugar factories. How does cane quality as measured by current standards impact on processing cost?

Group 3 topic was on “Energy and Steam Generation, Boiler Operations, Fuel Efficiency and Water Treatment”. The key participants were: Larry Cockburn, Jim Cuddihy and Dr. Harold Birkett. Louisiana factories were faced with a high cost of auxiliary fuel in 2002, can the lessons learned reduce costs for the future?

Group 4 topic was on “Sugar Processing”, which included “Hard-to-boil Massecurites” and “Developments in Evaporation”. Key Participants were: Dr. Gillian Eggleston, Dr. Michael Saska, Dr. Donal Day, Mike Marquette, Dr. Peter Rein and Ron Destefano. What causes the phenomena, now known as “pan death syndrome”? Has progress been made in overcoming this processing difficulty? Is dextranase (enzyme addition) a solution? What developments have

occurred in the use of Roberts v Kestner v plate evaporators in the US? How has the problem of corrosion of tubes, tubesheets, condensate pipes and calandrias of evaporators been addressed? Are microwave probes for juice/syrup density the answer to on line density measurement?

Group 5 topic was “Milling (Juice Extraction), The Use Of Extra Large Mills” Key Participants were: Charlie Schudmak, Trevor Endres, Tony Parris, Dr. Harold Birkett, Duane Legendre and Steve Bergeron. Economics may dictate that large mills, up to 110 inches in width, are installed when mainland factories upgrade in the future, what do we know about operating such mills at low speeds and high tourques. Can the traditional materials of construction fulfill the duty? What are the developments on new mill roller welding procedures?

Under the theme of standardization, Mrs. Tere Johnson presented the role and purpose of the ASSCT Sugar Cane Industry Standardization Committee and expressed the intention to have recommendations from this committee to go forward to the US National Committee on Sugar Analysis (USNC), a division of ICUMSA. Raw Materials and Product Quality were discussed and the need for high quality sugar cane to be delivered to the factory was discussed. Louisiana mills were particularly concerned at what it was costing them to process cane with high levels of extraneous matter. Florida mills explained that their cane quality measurements still involved the separation of trash from the cane to be able to get a true determination of extraneous matter, while Louisiana relies on the core sampling method which treats stalk fiber, leaves, and dirt as “fiber”. Cleaning of the cane was discussed especially the leaf blower which has been installed at Enterprise factory in Louisiana. That device seemed to remove a large quantity of leaves but the problem was what to do with the pile of discarded leaves? In Florida, concern was raised about the possibility of not being able to burn the cane. Apparently, the DEP are presently conducting studies of smoke plumes which are created from burning fields of standing sugarcane and intend to quickly implement a permit system, which the grower will be required to follow, should it be necessary to burn sugarcane.

Raw sugar quality was discussed and there was a view expressed which suggested that, because of the vertical integration between the Florida sugar factories and their refineries, there might be a move to increase the quality of the raw sugar in the hope of reducing the refining cost. After some discussion, there was also a view expressed that there might be a starch penalty which the refineries will seek to impose on raw sugar quality.

Energy consumption and steam generation were discussed and these topics were of particular concern to Louisiana which experienced a natural gas consumption level for the state of about 0.2 mcf per ton of cane. On a 15 million ton of cane crop, this equates to 3,000,000 mcf of gas. The average price of this gas for the 2003 crop could be as high as \$6.00 per mcf and would translate to a cost of \$18 million for the Louisiana industry. The need to minimize consumption was emphasized. Regression analysis had been carried out on a number of variables which were thought to impact on the consumption of gas. Downtime and ash in bagasse were highlighted as being contributing factors.

On sugar processing, the issue of how to cope with hard-to-boil masseccutes dominated the discussion. Dr. Saska and Dr. Eggleston explained how some of the compounds in the masseccute might affect the boiling. Dr. Saska has done some work on the difficult masseccutes

and found that the addition of acid can help. His paper presented at the ASSCT meeting in Baton Rouge in February 2003 provides some further insight into the efforts being made to provide ways to overcome the pan boiling problem. The most graphic explanation of how this phenomena can affect the sugar boiling process was given by Duane Legendre, who explained the numerous trial and error attempts which were made to remedy the situation when the massecuite suddenly became difficult to boil. He described a series of events which led him to believe that recycled cane washing water played a large role in causing the problem, but Gregg Nolan explained that even after “fresh” cane wash water was being applied, the phenomena occurred again. The group concluded that there are still lessons to be learnt about how to avoid this situation and how to overcome it.

The last topic to be discussed was about milling. Particular attention was paid to the breaking of mill roller shafts. The strength and wear properties of the shaft materials being used were discussed. Some mills said they tried materials with more elastic properties in the hope that the less brittle nature would overcome cracking of the shafts and some said that if they went to too soft a material, they found that they got excessive wear on their journals. It was explained that the design of a new mill being purchased by Cora Texas did not have an internal radius on the journals. The roll is centered only by the outside radius on the journals. The use of shafts with forged steps was also discussed and the use of more flexible couplings such as the rope coupling was discussed.

The session was dominated by a good flow of discussion among all participants and the group asked for a similar discussion to take place next year.