AOCS's 100 years



The first twelve presidents of the Society of Cotton Products Analysts/American Oil Chemists' Society, taken in 1921. From left, seated: Felix Paquin, David Wesson, E.R. Barrow, F.N. Smalley, G. Worthen Agee; from left, standing: G.G. Fox, T.C. Law, A. Campbell, P.S. Tilson, R.W. Perry, F.B. Porter, and C.B. Cluff.

1909: Let's meet at the Jockey Club

AOCS founding has roots in upscale fairgrounds bar

In May 2009, AOCS will celebrate its 100th anniversary. During the next 12 months, inform will publish a series of articles as to how an organization begun by nine men 99 years ago in Memphis, Tennessee, USA, has grown into an international organization with more than 4,000 members. The story has its beginning in May 1909 at the 13th annual meeting of the Interstate Cottonseed Crushers Association, probably with the arrival of a Cotton Belt Line train at Memphis Central Station carrying the Texas delegation to the crushers' annual meeting.

George Willhite

It was May 17, 1909. Forty-three-yearold Felix Paquin was making a homecoming of sorts to Memphis, Tennessee. He had left his Memphis home at 492 McLemore Ave. earlier that year after buying an analytical laboratory in Galveston, Texas.

Paquin, a native of Canada, had strong ties to Memphis. The partner in his former Memphis lab, G. Worthen Agee, had continued the analytical consultancy Paquin had founded in 1900. Paquin had been the official Memphis city chemist, a half-time position, as well as the official chemist for the Memphis Merchants Exchange. Trading rules specified Memphis as the settlement point for cottonseed oil trading disputes. Paquin conducted analyses, when needed, for arbitration cases and thus was a key person in the cottonseed industry.

Paquin was returning to speak at the 13th annual meeting of the Interstate Cottonseed Crushers Association that was to begin on Wednesday, May 18. Chemistry was becoming increasingly important to the cottonseed industry. The crushers

Timeline (Pre-AOCS)

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Procter & Gamble formed as brothers-inlaw create firm to make and sell candles and soap

1880

W.B. Albright develops manufacture of lard substitutes from cottonseed oil

1884

Association of Official Agricultural Chemists founded, later to become Association of Official Analytical Chemists (AOAC)

1887

International Oil Mill Superintendents Association formed in Waco, Texas

Future AOCS President David Wesson opens first analytical laboratory for systematic analysis of cottonseed oil mill products

Southern Cotton Oil Co. founded

1895

William Lever opens office in New York to handle sales of Lifebuoy and Sunlight soap

1897

Interstate Cottonseed Crushers Association formed

1898

English equipment firm Rose & Downs produces first batch solvent extraction plant

Ernst Twitchell of Emery Candle Co. patents process for splitting fats/oils into glycerin and fatty acids

1900

AOCS co-founder E.L. Johnson opens independent cottonseed analysis laboratory in Memphis some time prior to 1900

Future AOCS President Felix Paquin opens analytical laboratory in Memphis

French Oil Mill Machinery Co. founded by Alfred W. French Sr., serving linseed industry

V.D. Anderson invents mechanical screw press

1901

Buckeye Cellulose Co. founded as subsidiary of Procter & Gamble, to provide steady supply of cottonseed oil to P&G

1902

Daniels Linseed Co., predecessor to Archer Daniels Midland, founded in Minneapolis, Minnesota

1903

First bottle of linseed oil produced at Archer Daniels Mill (George Archer had joined John Daniels in the firm)

Future AOCS President P.S. Tilson opens analytical laboratory in Houston, Texas; future AOCS President T.S. Law opens laboratory in Atlanta

William Normann obtains British patent on hydrogenation process using nickel catalyst

James L. Kraft begins selling cheese by horse-and-wagon to Chicago grocers; eventually becomes Kraft Foods

1904

Frank Anderson, Monroe Anderson, and William Clayton form Anderson-Clayton as cotton merchant firm; later becomes AC Foods

1905

Future AOCS President E.R. Barrow opens lab in Memphis

1906

Corn Products Refining Co. formed by merger, plant to be built in Argo, Illinois

Future AOCS President H.B. Battle opens laboratory in Montgomery, Alabama

O'Bryan family founds Owensboro Grain Co.

1908

David Wesson establishes Wesson Oil & Snowdrift Co.

1909

First plant of Lever Bros. Inc. for commercial hydrogenation of liquid oils begins operation in Warrington, England

Future AOCS President Frank Smalley becomes chief chemist for Southern Cotton Oil; begins sending samples to firm's laboratories for analysis

John McMillan restructures financially troubled Cargill, a grain-trading firm formed in 1865

Paquin, others agree to form new society in social meeting at Jockey Club in Memphis

Procter & Gamble acquires U.S. rights to Normann's hydrogenation patent; later loses court fight for exclusive rights

Crosfield & Sons, United Kingdom, initiates industrial-scale hydrogenation system using Normann's hydrogenation method. had scheduled chemistry-related talks by Paquin and two Memphis residents, E.R. Barrow and E. Leman Johnson.

"The programme of the convention this year, that is the papers which are to be presented by the different delegates and chemical experts, is regarded as one of the most technical of any convention previously held. They are replete with interest to the crushers, but to the average layman they are as so much ancient Greek or Sanskrit," the *Memphis Commercial Appeal* reported on May 19. Chemistry papers represented about a fourth of the total presentations at the meeting.

The crushers "enthusiastically received" Paquin when he was introduced on Thursday, May 19, to present "The Valuation of Cottonseed Products with Special Reference to Moisture in Meal and Cakes," according to the *Commercial Appeal*.

"He brought out the full value of analytical chemistry in the cotton seed product industry to the manufacturer, the buyer, the seller, and the trader, showing how the best price could be secured for such products in the open market," the report continued, noting that Paquin's paper was "ably prepared, well-delivered, and he was roundly applauded at its close."

Barrow, an early member of the crushers' organization who had been named official chemist for the Memphis Merchants Exchange earlier that year, spoke on "The Uniform Moisture Basis for Reporting Analytical Results." Johnson's paper was "Suggestions for Promoting Accuracy in the Sampling and Analysis of Cottonseed Products." Other chemistry papers included "Effect of Moisture in Cottonseed Meal as Affecting Settlement on Basis of Analysis" by George O. Haskell and "Estimation of Cottonseed Hulls in Cottonseed Meal" by G.S. Frapa.

Paquin, Barrow, and Johnson were three of the 15 analysts among the approximately 700 persons attending the convention at the recently refurbished Tri-State Fairgrounds in Memphis. Interstate Cottonseed Crushers Association members appreciated the increasing importance of chemical analysis to their industry. In the crushers' first rule book, issued in 1897-98, "no methods of analysis were specified, and there were no definite standards (for) prime crude oil, prime summer yellow (oil) or prime meal, etc." C.B. Cluff wrote in a 1945 issue of Oil & Soap. "Prime crude oil, for example, was required to produce 'prime summer yellow

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Remembering the Jockey Club AOCS' founding site survived until 1950

After many years as the Tri-State Fairgrounds clubhouse, the Jockey Club underwent several metamorphoses before its demolition in 1950.

For a while, it was home to Memphis' Bachelor's Baby Hospital, one of the first charity baby hospitals in the mid-South. Eventually it became the office for Memphis Park Commission's Recreation Department. The recreation department moved out in 1947, but continued to use the structure as a warehouse.

Before the building's demolition in 1950, recreation department workers removed bales of costumes—clowns, little girls' princess outfits, etc.—from the basement, which once had been the Jockey Club barroom. The fairgrounds area became "Libertyland," a recreationthemed area that includes the Mid-South Coliseum, where such acts as Elvis Presley and the Beatles appeared. The nearby Liberty Bowl stadium is home field for the University of Memphis football team and site of the annual Liberty Bowl college football game.

One historical Memphis figure who had visited the Jockey Club was Edward H. (Boss) Crump, who ran the dominant political machine in Memphis until he died in 1954. A newspaper article on a fairgrounds' grandstand fire in 1945 noted that:

"Memphis society, then as now, has always been attracted to the Fairgrounds and the old clubhouse Society itself centered around the Jockey Club. Mr. Crump said that when he was only 25 (in 1899) he was a steward in the club."

Crump survived the club by four years. Felix Paquin died in 1951, one year after the Jockey Club was torn down.



A sketch of the Jockey Club in Memphis, Tennessee, AOCS' founding site.

For further reading:

- Procter and Gamble, in Person, JAOCS 46:4
- Atlanta and the cottonseed processing industry, INFORM 5:10–19
- Pioneer oil chemists: Allbright, Wesson, INFORM 5:94–100
- Giants of the past: David Wesson (1861-1934), inform 14:744-745
- Giants of the past: Hippolyte Mège (1817-1880), inform 17:264
- Giants of the past: Wilhelm Normann (1870–1939), inform 15:364–365 (2004)
- Cottonseed oil's rise to prominence, INFORM 9:100–106
- Julius Lewkowitsch—a memoir of a pioneer in fats and oils technology, INFORM 7:1130–1136
- Julius Lewkowitsch: a pioneer of oils and fats technology, inform 14: 363 (2003)
- Soybeans' path to New World a tangled tale, INFORM 10:116–117 (1999)
- United States' cottonseed history, INFORM 11:830–839 (2000)
- Lecithin: the first 150 years (Part 1), INFORM 11:885-892 (2000)
- Lecithin: the first 150 years (Part 2), INFORM 11:992-997 (2000)

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History in brief

Paquin as city chemist

(from the Memphis Commercial-Appeal, April 30, 2006): 100 years ago: 1906 Seven milkmen were arrested yesterday on charges of City Chemist Felix Paquin that the milk they were selling failed to test the required 3.5% butterfat. The arrests were made by Sanitary Officer H.L.P. McGee. grade by the usual refining methods with a normal loss of weight.""

But there was no guidance as to what "usual refining methods" were, or what would be a "normal loss of weight," Cluff noted.

Since 1903, the crushers had been appointing refining chemists from manufacturing firms to prepare a standard refining test and give pointers to arbitration chemists on how to refine crude oil. But at the 1909 Memphis meeting, the crushers appointed a chemists' committee (Paquin, Barrow, Johnson, R.C. Warren, and F.N. Smalley) to prepare official methods of analysis for adoption by the association's rules committee.

The analysts attending the 1909 meeting worked for private analytical laboratories or for firms that produced, used, or traded cottonseed oil, cake, or meal. Their task was to evaluate product quality. When a seller said he sent prime summer oil to a buyer and the buyer said it was second-rate, some objective method was needed to determine who was right. The analysts were being asked to reach agreement on which methods should be used to determine product quality. At that time, U.S. cottonseed production was about 4.4 million tons annually and it sold for about \$24 a ton. If companies had a better indication of the potential value of their cottonseed, the expectation was that they could increase their income.

The fairgrounds' Jockey Club, also known as the Clubhouse, was adjacent to the fairgrounds hall where the convention business sessions were held. The Jockey Club was a showplace of the refurbished fairgrounds with a cool basement bar that provided an appealing place to gather for conversation and refreshment at the end of each day's program.

On Friday, May 20, after the formal meeting had concluded, some of the analysts were discussing their mutual problems-including how to develop a standard refining method-in the Jockey Club's basement bar. Those attending included Agee, Barrow, Johnson, Thomas C. Law, Paquin, R.W. Perry, Smalley, Warren, and David Wesson, who in 1887 had opened the first private U.S. laboratory for systematic analysis of cottonseed products. Those nine men-most in their 20s-agreed they should form a cottonseed oil analysts' organization to "promote social feeling, permit close cooperation in developing uniform analytical methods, and provide a means for research," their future constitution would say.

Paquin was elected president of the unnamed fledgling group. Barrow and Agee were asked to draft a constitution and bylaws for adoption by analysts attending the next year's Interstate Cottonseed Crushers Association in Little Rock, Arkansas.

The first steps had been taken. What would be the reaction of other analysts to the proposal? What name should the group have? How should they determine which analytical methods merited adoption by the Interstate Cottonseed Crushers' Association?

George Willhite, who is preparing this series of articles as AOCS' centennial historian, retired from AOCS in 2002 after 27 years as a member of its publications staff. He is an honorary member of AOCS. He can be contacted via e-mail at: willhite@aocs.org.

Next month: 1910–1918: Getting started

