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# The American Society of Sugar Beet Technologists, Advancing Sugarbeet Research for 75 Years

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## ABSTRACT

The American Society of Sugar Beet Technologists (ASSBT) was created 75 years ago when a group of researchers that had been meeting informally as the Sugarbeet Roundtable adopted the constitution and by-laws that provided the basis for an organization that continues to foster the exchange of ideas and information. Biennial meetings and the publication of research articles have facilitated communication among the members. Prior to the launch of the Journal of the American Society of Sugar Beet Technology in 1956 (renamed the Journal of Sugar Beet Research in 1988), articles were published as proceedings. All issues of the journals and proceedings were made available to the public on the internet in 2011. Membership of ASSBT increased during the first 25 years from 256 two years after the formation of the Society to 633 on the 25th anniversary. Membership dropped to 550 on the 50th anniversary of the Society and in recent years has been near 300. ASSBT has facilitated the cooperation necessary for overcoming numerous problems, allowing the industry to increase productivity and remain economically viable, and is poised to continue its role as a contributor to the future success of the industry in a highly competitive environment.

**Additional Key Words:** Beet Sugar Development Foundation, International Institute for Beet Research, Sugarbeet Roundtable.

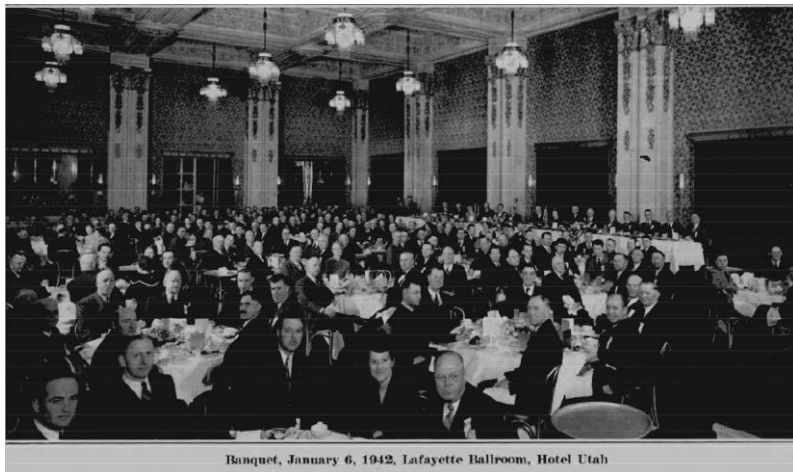
The need for a formal organization that would facilitate communication among diverse facets of the beet sugar industry was recognized by participants in an informal group known as “The Sugar Beet Roundtable”. T. G. Stewart (Fig. 1), an extension agronomist with Colorado State College of Agriculture (now Colorado State University), is credited with organizing the first meeting of the Roundtable at Ft. Collins, CO in 1935. After the second meeting of the Roundtable in 1936, researchers from California were invited to join the 1937 discussions. The process of creating a more structured national organization that would bring together the various facets of the industry culminated on January seventh during the closing session of the 1937 meeting (Brewbaker, 1948). At least 24 groups (Martin, 1997), including processing companies, seed companies, state universities, the U.S Department of Agriculture, and sugarbeet growers associations from across the United States and Canada were represented at the 1937 Roundtable. A. W. Skuderna (American Beet Seed Co., Rocky Ford, CO) was elected the first president, N.R. McCreery (Great Western Sugar Co., Denver, CO), Vice-President, and H.E. Brewbaker (USDA, Fort Collins, CO), Secretary-Treasurer (Martin, 1997). A committee was assigned the task of drafting a constitution and by-laws for discussion at the first session of the 1938 meeting (Brewbaker, 1948; Stewart, 1962). The participation of representatives of the Canadian sugar industry in the 1937 Roundtable discussions was likely instrumental in the Society becoming the “American Society” with the inclusion of Canadians as full participants in the organization since its inception (Martin, 1997).

The American Society of Sugar Beet Technologist (ASSBT) was officially created on 13 January 1938 in Salt Lake City, UT with the adoption of a constitution and by-laws; membership dues were set at \$1.00. Sixty-four papers, including one presented by a Danish researcher, were presented at the 1938 meeting and copies of the proceedings were sent to four libraries in Europe in exchange for five European or international publications. Discussions at

**Figure 1.** T.G. “Guy” Stewart is credited with being the motivational force behind the informal 1935-37 Sugarbeet Round Table meetings that led to the formation of ASSBT in January 1938 (© Colorado State University Libraries – used with permission).



**Figure 2.** Banquets have been a culminating event of ASSBT Biennial Meetings since 1940 (1942 PASSBT).



the Roundtable meetings were limited to breeding, agronomy, or other phases of production research; ASSBT has included chemists and factory technologists as full participants since its beginning (Stewart, 1962). According to the original constitution, "The objective of this society shall be to foster all phases of sugar beet and beet sugar research, and act as a clearing house for the exchange of ideas resulting from such work" (Anonymous, 1940; Oldemeyer, 1987). The wording of the current mission statement ([bsdf-assbt.org/assbt](http://bsdf-assbt.org/assbt)) has changed slightly but remains primarily focused upon the original objectives. The interchange of ideas through the Society is credited with breaking down many barriers between companies and leading to a free discussion of mutual problems (Cannon, 1946; Cormany, 1954). On the occasion of the 50th anniversary of ASSBT, President Donald Oldemeyer (1987) contended that the value of ASSBT in fostering cooperation among federal, state, and private researchers which, in turn contributes to the cohesiveness and survival of the industry, could not be overemphasized.

ASSBT has not only fostered exchanges among its North American members but also has facilitated communication with colleagues in Europe. As early as 1940, the membership rolls included three European researchers (Brewbaker, 1940). Furthermore, a notification of the ASSBT meeting and greetings were sent via cablegram to the IIRB (International Institute for Beet Research, Brussels, Belgium) during the inaugural ASSBT meeting in 1938. The regular attendance of IIRB representatives at ASSBT meetings is evidence of an enduring productive relationship between IIRB and ASSBT. The feasibility of a joint ASSBT-IIRB meeting was considered in 1960 and ASSBT sent an official delegation of five to the first joint meeting of the two organizations in London, England in 1961 (Stewart, 1962). In 1963 a delegation of

ASSBT members were guests of an IIRB hosted tour of the European sugarbeet industry, and two years later, a delegation representing IIRB toured some U.S. production areas as guests of ASSBT. A second ASSBT group toured Denmark and Sweden in 1969 and ASSBT hosted a tour of some of the production areas of the U.S. by IIRB members in 1973 (Martin, 1997). Since 1973, ASSBT has sponsored three visits to IIRB meetings in Europe; (1) the 1991 summer meeting in Bologna, Italy followed by a tour of sugarbeet areas in Germany and The Netherlands, (2) the 1995 meeting in Beaune, France followed by a tour of Morocco and Spain, and (3) the 1997 meeting in Cambridge, England that concluded with tours in Sweden and Denmark (Martin, 1997). The first, and to date only, joint IIRB-ASSBT Congress was convened 26 February 2003 in San Antonio, TX (Gebhard et al., 2003).

Between 37 and 140 sugarbeet researchers participated in the 1935 to 1937 Roundtable discussions that preceded the formation of ASSBT. Two years after the formation of ASSBT, the organization had 256 members (Brewbaker, 1940). Membership had increased to 354 on the tenth anniversary (Cannon, 1946) of the formation of ASSBT and regional meetings were held in Detroit, MI and Salt Lake City, UT. On its twenty-fifth anniversary (Stewart, 1962), ASSBT had 633 members representing 35 states and 20 countries and the Society's Journal was distributed to 59 countries. Membership dropped to 550 on the fiftieth anniversary (Oldemeyer, 1987) of ASSBT and is currently about 300 as it celebrates its seventy-fifth anniversary.

Formal communication among members occurs through oral and poster presentations at biennial meetings, published proceedings of the meetings, articles relevant to the industry in a peer-reviewed journal, and through on-line web-sites that allow unrestricted access to all society publications. Biennial meetings were held in or near sugarbeet production areas in the midwinter prior to 1968 (a list of all meeting sites, 1938-2013, is available at [bsdf-assbt.org/assbt](http://bsdf-assbt.org/assbt)). Having to endure temperatures that never exceeded 0° F during the 1966 meeting in Minneapolis, MN prompted the scheduling of future meetings at warmer more southern sites, according to rumors (Martin, 1997). There was no meeting in 1944, because of war-time restrictions

**Figure 3.** James H. Fischer, served as first permanent Secretary-Treasurer of ASSBT from 1952 to 1987 (JSBR 32 (4)).



and the meeting scheduled for 1980 was delayed until the winter of 1981 because of severe economic problems in the industry; all other meetings have occurred at two-year intervals. The only biennial meeting convened outside the borders of the U.S. was the 31th Biennial Meeting in Vancouver, BC, in 2001. Banquets that provide a forum for recognizing members who have made extraordinary contributions to the Society and foster camaraderie among the members have been a fitting culmination of the Biennial Meetings since 1940 (Fig. 2).

Prior to 1956, all research reports were published as proceedings of the biennial meetings (PASSBT). The first two volumes (1938 and 1940) were distributed to members as mimeographed reports, primarily because of limited funds. With the exception of 1944, from 1942 to 1954 the proceedings were compiled in book form. Publication of the 1942 Proceedings was underwritten by the U.S. Beet Sugar Association (\$2,550) and the Farmers and Manufacturers Beet Sugar Association (\$450) (Cormany, 1946). There were no meetings in 1944; hence, no proceedings were published. After its launch in 1956, the Journal of the American Society of Sugar Beet Technologists (JASSBT) became the principal ASSBT publication for distribution of research results. JASSBT was renamed the Journal of Sugar Beet Research (JSBR) in 1988. James Fischer edited the JASSBT for many years in conjunction with his responsibilities as Secretary-Treasurer of ASSBT. Susan Martin replaced Fischer as Editor and since then three members have served as Journal Editors, Alan Dexter, Larry Campbell, and Lee

**Figure 4.** Stephen Reynolds, hired in 1986 to work with Fischer prior to assuming full responsibilities as ASSBT Secretary-Treasurer in 1987.



Panella, with the assistance of many Associate Editors and anonymous expert reviewers. It is in the spirit of the founders that the publications of the ASSBT are now accessible without charge to the general public on recently established websites (Panella, et al., 2011). These sites provide access to all issues of JASSBT and JSBR ([assbt-jsbr.org](http://assbt-jsbr.org)), and the proceedings of the first (1938) to the thirty-sixth (2011) biennial meetings ([assbt-proceedings.org](http://assbt-proceedings.org)). Since 1993, abstracts of papers presented at the biennial meetings have been published in JSBR. The sites allow users to search by topic or author. This enhancement of communication among sugarbeet researchers worldwide will, in turn, complement

a longtime objective of ASSBT, that of “producing more sugar per acre at decreased cost” (Coke, 1942; Oldemeyer, 1987).

ASSBT has established four award categories to recognize members whose contributions to the industry and/or Society are substantial. The **Forty-Year Veteran Award** recognizes any individual, member or nonmember, whose service has benefited the industry for 40 years. The **Meritorious Service Award** acknowledges members “who have been outstanding in promoting the objectives of the Society, or have made significant contributions to the beet sugar industry”. Those elected to **Honorary Membership** “have rendered outstanding service to the beet sugar industry or have by virtue of scientific accomplishment acquired the admiration and respect of this Society”. The most prestigious award the Society offers is the **Savitsky Memorial Award** named in honor of Viacheslav and Helen Savitsky (McFarlane, 1993). The Savitsky Award recognizes those who “have excelled in either scientific advancement in the field of sugar technology, or service and dedication to the sugar industry”. Only seven individuals have received the Savitsky Memorial Award; Richard A. McGinnis (Spreckels Sugar Co.) in 1991, James H. Fischer (BSDF) in 1995, James E. Duffus (USDA-ARS, Salinas, CA) in 2001, Marius Christian George Middelburg (van der Have) in 2003, Alan G. Dexter in 2007 (North Dakota State University and University of Minnesota), and Alvin W. Erichsen (Holly Hybrids) and Robert T. Lewellen (USDA-ARS, Salinas, CA) in 2009. Current and past award recipients are listed at [bsdf-assbt.org/assbt/awards/htm](http://bsdf-assbt.org/assbt/awards/htm).

ASSBT shares many common objectives with and has benefited from a close association with the Beet Sugar Development Foundation (BSDF). BSDF was chartered under the laws of Colorado in July 1945. At that time, it was primarily concerned with mechanizing sugarbeet production (Cannon, 1946). BSDF membership consists of sugarbeet processing companies and seed companies. “The BSDF is dedicated to the advancement of sugarbeet production and beet sugar processing through science based research and leading educational programs” ([bsdf-assbt.org](http://bsdf-assbt.org)). BSDF financed the publication of the proceedings of the 1946 ASSBT meeting (Cormany, 1948) and through-

**Figure 5.** Thomas K. Schwartz, current Executive Vice-President of ASSBT, a position he has held since 1988.



**Figure 6.** Mechanization of sugarbeet production, particularly harvest operations, was a high priority during ASSBT's first ten years (from inside the cover of the 1946 PASSBT).

## Harvesters — 1946



John Deere



International



Scott-Urschel



Marbeet Junior

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out the years since has provided supplemental funding for many of the research projects managed by members of ASSBT, and others. James H. Fischer (Fig. 3) was the first paid Secretary-Treasurer of BSDF, originally hired while an engineering student on a part-time basis in January 1947 and on a full-time basis in 1948; he held the position for 40 years (Oldemeyer, 1987; Martin, 1997). Beginning in 1952, Fischer also served jointly as Secretary-Treasurer of ASSBT and was a major force behind the 1956 launch of the *Journal of the American Society of Sugar Beet Technologists* (Anonymous; 1995). Fischer also is recognized for facilitating the transition of ASSBT to a non-profit corporation under the laws of Colorado in 1985 (Munroe, 1985). Stephen Reynolds (Fig. 4) was hired in 1986, initially to work with Fischer and then assume full responsibilities upon Fischer's retirement in 1987. Reynolds served as Secretary-Treasurer until his departure in 1988. Thomas Schwartz (Fig. 5) was hired to replace Reynolds in September 1988 and has promoted the objectives of and guided BSDF and ASSBT since. Schwartz's title was changed to Executive Vice-President to more accurately reflect the executive duties of the office (Martin, 1997). Schwartz was instrumental in updating the *Journal* format, including changing the *Journal's* name and logo, in 1988 and more recently the efforts to establish the on-line presence of the *Journal*.

History documents the fact that the beet sugar industry has faced many challenges, some from natural sources and others from public policy decisions and perceived health concerns. Protected by a 1.685 cent per pound tariff (Surface, 1910), the U.S. sugar industry flourished in the 10-year period following 1896. The pending elimination of the tariff probably would have been a death blow to the industry had it not been for the increase in domestic food production prompted by World War I (Coke, 1942; Cannon, 1946). During the Second World War, a similar need for a reliable domestic sugar supply benefitted the industry (Coke, 1942; Marshall, 1948). Immigration policy that limited the availability of Mexican nationals was cited as a problem that would complicate weed control in sugarbeet fields in the presidential address at the 1964 ASSBT Biennial Meeting (Rorabaugh, 1964). While government policies affect the well-being of the industry and may impact the resources available for research and the nature of the research conducted, ASSBT, as a society, is not directly involved in molding policy.

Although specific research objectives change over the years, ASSBT and its members always have focused on increasing productivity, reducing costs, and adapting new technology to old problems. A priority topic at the 1940 meeting was the standardization of experimental methods (Doxtator et al., 1940). Mechanization of all facets of production, but particularly harvesting (Fig. 6), was emphasized during the first 10 years of ASSBT (Smith, 1950). Cannon (1946) credits the 1945 meeting of sugar company executives to discuss mechanization that led to the founding of the BSDF to the cooperation of researchers fostered by ASSBT. In 1983, ASSBT created the Sugarbeet Crop Advisory Committee (now the Crop Germplasm Committee – CGC) to represent the



sugarbeet germplasm user community (Panella and Lewellen, 2007). The CGC is a self-sustaining group that advises the USDA-ARS National Plant Germplasm System and ASSBT on matters related to sugarbeet germplasm collection, availability, evaluation, and enhancement. Diseases, insect, and weed control issues have changed over time but remain a constant threat to production. Fertilizer management, tillage options, seedling emergence, and other management practices have been frequent topics at ASSBT meetings and continually require refinement as new equipment, varieties, and knowledge becomes available. Postharvest storage losses have been recognized by ASSBT as a problem at least since 1946 (Cannon, 1946). Improving sucrose extraction rates and the efficiencies of factories has been and continues to be a high priority. Public policy decisions that will affect profitability remain unpredictable. Diseases and insect pests are occurring with increased intensity in some areas and show no sign of diminishing. The optimization of precision agriculture technologies to specific environments will enhance production efficiency. Remaining competitive in a global economy will require the continuation of the productive cooperation between industry and public research institutions that has been facilitated for the past 75 years by ASSBT. ASSBT will remain a strong, effective, vehicle for this cooperation as long as it keeps the vision of its founders and those who have followed as its mission.

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