The Centennial of the Smith-Lever Act and Aquaculture Extension

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This event was to commemorate the centennial of the landmark Smith-Lever Act of 1914 signed into law by U.S. President Woodrow Wilson creating the Cooperative Extension Service as a partnership between the USDA and the Land Grant University system nationwide. Extension Directors from Land Grant Universities across America along with other dignitaries were in attendance at these ceremonies in celebration of the successes of the last century and hopes for the next century for this program of practical education, outreach, and cooperative research primarily with extramural farm and conservation communities.

The creation of the Cooperative Extension Service set into place the “third pillar” of the Land Grant mission of extramural engagement in addition to the previously recognized mission activities of intramural teaching, scientific research and other scholarship. Thus the Land Grant Universities were expected to seek out cooperators and engage beyond the “ivory towered walls” of the academy in this new model for higher education in America. The development of aquaculture is an example of a vibrant sector within America’s farm economy that has been aided greatly through extension services enabled through the Smith-Lever legislation.

Seaman A. Knapp

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By Michael A. Rice

The latent extension movement at America’s Land Grant Colleges was given a boost because implicit within the Hatch Act of 1887 was an expectation that practical research at these newly created Agricultural Experiment Stations would be disseminated for the establishment of the Agricultural Experiment Stations at all of the Land Grant Colleges nationwide.

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Kenyon L. Butterfield
By the time of Knapp’s death in 1911, the seeds of Cooperative Extension programming were sown, but the formal institutionalization of the program into the Land Grant colleges was largely taken up by Kenyon L. Butterfield (Fig. 2) who became the President of the Rhode Island College of Agriculture and Mechanical Arts (RIC&M, now the University of Rhode Island) in 1903. In an atmosphere of considerable political action by Rhode Island’s farmers at that time, Butterfield in April, 1904 was able to secure a USD$4,000 appropriation from the Rhode Island General Assembly to institute an extension department at the college and hire dedicated extension faculty to cooperate with the experiment station researchers and work with Rhode Island’s farmers.

The administrative organization of RICA&M worked so well that only two years later in 1906, Butterfield was hired as president of the Massachusetts Agricultural College in Amherst (MAC, now University of Massachusetts) to replicate the work that he had done in Rhode Island to set up the college’s Extension Department. It was while serving as president of MAC that Butterfield drafted the Agricultural Extension Act introduced by Senators M. Holte Smith of Georgia and Ashbury F. Lever of South Carolina and signed into law by President Wilson on May 8, 1914.

Athelstan F. Spilhaus
For America’s aquaculture community, particularly those engaged in mariculture, a major part of the extension programming is carried out by extension professionals associated with the nation’s Sea Grant Colleges. The National Sea Grant Program and College Act of 1966 was initially conceived by Athelstan F. Spilhaus (Fig. 3), an oceanographer and geophysicist at Woods Hole Oceanographic Institution and the University of Massachusetts, who introduced the idea at the 1963 annual meeting of the American Fisheries Society. In his September 4th, 1964 essay “Man in the Sea” in Siwot, Spilhaus explicitly patterned the Sea Grant Program after the successful Land Grant Colleges and the Smith-Lever Act that he described as “one of the best investments this nation ever made.”

The Sea Grant Act
The first hearings in support of the passage of the Sea Grant Act were held on May 2nd, 1966 by its primary sponsor, Senator Claiborne Pell of Rhode Island (Fig. 4). Assisting Pell and his staff in the hearings and drafting of the bill were John A. Knapp, the then dean of marine science at the University of Rhode Island who later served as Undersecretary of Oceans and Atmosphere in the Department of Commerce, and Lewin M. Alexander, a professor of Geography and Marine Affairs at URI who later served as the Geographer for the United States Department of State. The Sea Grant Act was signed into law October 7th, 1966 by President Lyndon B. Johnson, creating the Sea Grant Program and its associated Marine Extension Service at Sea Grant Universities nationwide.

Two decades later, in September 1985, the first comprehensive National Aquaculture Development Plan for the United States was published by the Joint Subcommittee on Aquaculture of the Federal Coordinating Council on Science, Engineering and Technology, with Land Grant and Sea Grant Extension capabilities identified as a key component of the plan. On the heels of this national plan in 1987, the U.S. Congress appropriated USD$3 million to the budget of the Department of Agriculture to fund five Regional Aquaculture Centers (RACs) that were previously authorized under the Food Security Act of 1985.

The creation of the RACs allowed Extension professionals from both the Land Grant and Sea Grant College Programs to actively cooperate nationwide in aquaculture extension programming. One major effort of the RACs has been the sponsorship of a series of National Aquaculture Extension Conferences held about every five years. The first of these conferences was primarily organized by Nathan Stone of the University of Arkansas at Pine Bluff in 1992, bringing together the national network of aquaculture extension professionals to meet at the Arkansas Cooperative Extension Center in Fannin, Arkansas. This successful joint conference of Land Grant and Sea Grant extension professionals set the pattern for subsequent RAC extension networking and programming efforts, which is expected to continue well into the future.

The relationship between the government and the Academia
This year’s Centennial of the 1914 Smith-Lever Act in America provides a good opportunity to remember the accomplishments of Extension over the last century and to reflect upon the elements that make extension programming effective. The foresight of Knapp, Butterfield and Spilhaus in creating the extension services has greatly benefited America’s aquaculture industry largely due to its tight relationship with the research and instructional capabilities of the Land Grant and Sea Grant colleges.

University-based extension programming is also advantageous in building trust and cooperation between and among aquaculture industry members, researchers and extension professionals, much as Knapp initially conceived. Although there is governmental funding of Extension programming at American universities, there is frequently an arms-length relationship between the universities and governmental regulatory authorities responsible for industry oversight.

Elsewhere in the world, extension programs have often developed differently. For instance, in some other countries, extension services may be based upon programming by non-governmental organizations that may have the arms-length between them and governmental regulators, but they may not have such a tight relationship with the research community and most up to date and relevant scientific information. Conversely in some other places, extension professionals may be based directly in national, provincial governmental offices and have ties to excellent research from national agricultural or marine science laboratories, but their efforts may be hampered by the too-close relationship with important regulatory authorities often in their same agency.

The ingenuity of the Extension system built by Knapp, Butterfield, Spilhaus and all the others is the assurance that the best science and scholarship is brought to bear on the most difficult problems facing industry, while simultaneously building cooperation and trust among all the stakeholders.