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The Legacy of William Jasper Spillman

by Gerald F. Vaughn

William Jasper Spillman (1863-1931) received bachelor's and master's degrees in the 1880s, and an honorary doctorate in 1910, all from the University of Missouri. He was trained in both mathematics and agriculture and, early in his career, became noted for his studies in plant breeding at Washington State University. Due to his competence in genetics, the U.S. Department of Agriculture employed Spillman in 1902 as head of grass and forage plant investigations.

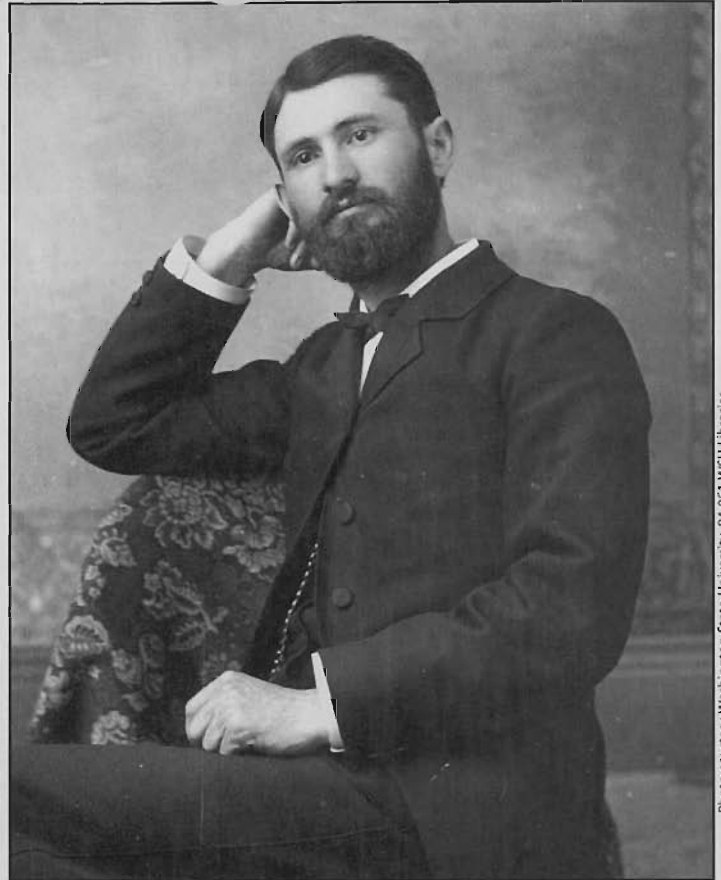
While in this position Spillman initiated studies of types of farming and farming methods, a forerunner of farm management research. He focused on facts regarding the way in which the best paying farms in the country were managed and their relationship to surrounding conditions such as proximity to markets, leasing arrangements, soils, climate and their method of farming. He was a strong supporter of George F. Warren's "survey method" of studying farm management practices and was instrumental in stimulating such farm management surveys throughout the nation.

In 1904 Spillman was placed in charge of the USDA's new Office of Farm Management. By 1909, the term "farm economics" began to appear in USDA reports indicating the broadening economic emphasis that Spillman desired for the work of his unit. Indeed, at the University of Delaware on June 14, 1909, Spillman spoke to an audience of about 1,000 on the topic "Some of the Economics of Agriculture." In July 1910, a group of interested persons met to form the American Farm Management Association. Spillman was elected first president. In 1919 the American Farm Management Association merged with the Association of Agricultural Economists to establish the American Farm Economic Association, now known as the American Agricultural Economics Association.

By 1910 Spillman had seen the need to demonstrate the farm management practices used on the best paying farms, so he established a network of county extension agents in several states. Spillman had 203 such agents when the Smith-Lever Act was passed, creating a nationwide extension system in 1914. His county agents were transferred to the USDA's new Office of Extension.

Spillman also had become increasingly interested in land use and conservation during America's first conservation movement (1890-1920). Though trained as a natural scientist, he became more and more of an economist and was one of the few economists of his era to study the economics of natural resources.

America's early conservation movement had little if any economic rationale. It was led by natural scientists and engineers who were concerned about the physical waste of natural resources. They didn't look to economists for aid and would have gotten little or none if they had. Gerald Alonzo Smith indicates that prior to about 1910



William J. Spillman

"Most economists did not (and do not) think that natural resources were unique factors of production but that they were similar to other factors and did not warrant special treatment in their analysis." In 1963, Barnett and Morse observe: "In the vast Conservation literature of the period 1890-1920, there is no rigorous economic analysis of natural resource economic scarcity. Nor is there analysis of nineteenth-century economic history which, in a scholarly way, identifies and measures natural resource economic scarcity and its economic effects."

Grover Pease Osborne's *Principles of Economics: The Satisfaction of Human Wants In So Far As Their Satisfaction Depends On Material Resources* (1893) may be an exception. Though a member of the American Economic Association, Osborne (1847-1931) was an obscure economist. More accurately, he was not a professional economist at all. He was a Baptist clergyman and editor in Cincinnati. Osborne likely intended his *Principles of Economics* to be a general economics text. However, his book addressed more thoroughly, and with more acute insight than other economics texts, the problem of whether the American economic system would always make wise use of its natural resources. Neither a defender of laissez-faire capitalism nor an advocate of socialism, Osborne took an institutional approach to analysis of America's land question, observing: "Usually he who has possession of the land may be trusted to make the best use of it, or at least some use which will be for the interests of Society ... But there are some exceptions ... If the use made of land by its holder is inconsistent with public policy, or if it is not used

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for the satisfaction of wants, the public have the right to interfere."

Even such an enlightened economist as Richard T. Ely did not comprehend the problem so fully as Osborne. Ely had devoted some pages to improving forestry in his *An Introduction to Political Economy* (1889), but a year later he wrote "that important as this question is, the amount of land in proportion to our needs is still large, and it is a problem of tomorrow rather than today."

As a natural scientist en route to becoming an economist, Spillman perhaps had an advantage. He could clearly see the threat of soil erosion, which was largely ignored while the American conservation movement concentrated attention on the problems of forests, minerals, and arid lands. Long before the "Dust Bowl" conditions of the 1930s caught the nation's attention, Spillman called for diversified farming in the cotton belt and the use of terracing to control erosion. In 1906 he addressed the renovation of worn-out soils. He dealt with farm tenancy and grew concerned about short leases in relation to maintaining soil fertility. In 1909 he wrote an article asking the question, "Is the Present System of Tenant Farming Building a Strong System of Agriculture?"

In *Soil Conversation*, "USDA Farmers' Bulletin 406" (1910), he asserted: "We must cease abusing the soil. The renting of land on short leases for the purpose of growing grain for market is one of the surest means of reducing the productive power of the soil." He urged keeping more domestic animals on the farm and greater use of leguminous crops. He encouraged farmers to utilize soil-conserving resources available to them. Nearly a century ago, Spillman advocated an alternative agriculture not unlike the environment-friendly agriculture that America's farmers are still groping toward.

Spillman's concern about soil erosion and the need for better soil conservation, integral to the physical conditions determining the use of land for agriculture and forestry, took him to studies of land classification and tenure. In 1912 he employed Oliver E. Baker, an agricultural geographer, to direct studies of the economic geography of agriculture in the United States and other countries. Baker delineated agricultural regions and mapped agricultural production and trade. Major results of Baker's work included *A Graphic Summary of American Agriculture* (1915), a voluminous series known as *The Atlas of American Agriculture* (beginning in 1917), and *Geography of the World's Agriculture* (1917).

In 1918 Spillman wrote: "We have come to a period in our national development when land has become the most important limiting factor in the further development of our agricultural resources. It is therefore time to take stock of our resources in land." Earlier geographic studies proved useful for this purpose, and Henry C. Taylor pressed for their continuation with this assessment in 1921: "Geographic studies show the relation of climate, soils, topography, markets, the character and density of the population, and other geographic facts,

to the utilization of land, farm practices, size of farms, and to the kinds of crops and live stock which can be grown with the best results in each part of the United States." Taylor's assessment enabled geographers to conduct land utilization research and prepare statistical series and maps at periodical intervals. They proved valuable inventories of America's land resources over the next two decades.

In 1942, Hugh W. Wooten became responsible for the USDA's land utilization research and statistical series. From 1943 until nearing retirement in 1963, Wooten was Head of the Land Utilization Section of the USDA's Bureau of Agricultural Economics and its successor agencies. During these years, the Congress and other policymakers relied heavily on the land-use analyses that Wooten and his staff conducted as basic information essential for national land-use policy decisions. Wooten's insightful analyses of America's land-use were significant contributions to the formulation and implementation of effective national land-use policies, programs, and projects. He developed and refined the procedures that continue to make today's land utilization research and statistical series invaluable to policymakers. This vital work has been one of the most enduring parts of Spillman's legacy.

Spillman also is well remembered for his office's studies of farm tenancy and his examination of the "agricultural ladder" by which tenants become owners. By the 1920's Ely could write: "Real progress is being made in getting at the principles underlying agricultural land tenure. The Bureau of Agricultural Economics of the United States Department of Agriculture and some agricultural colleges have made some careful studies in regard to tenure and ownership of farms." Nonetheless, it was also true, as George S. Wehrwein observed, "like other land problems, tenure is not a static thing; facts and conditions alter, and present trends change direction. In a rapidly developing country such as ours, the present findings will be more or less antiquated in five years." Clarence A. Wiley stated that "the biggest tenure problem in the South today is to recognize one when we see it, and the biggest research need is to know how and what research to do." Thus Spillman set in motion an unending process of research into farm tenancy, which, though a difficult area of research, has been revealing and constructive.

This pioneering agricultural economist, William Jasper Spillman, directed USDA's farm management research until 1918, when a serious disagreement with the Secretary of Agriculture forced Spillman to resign. After serving as associate editor of the *Farm Journal* for three years, Spillman returned to the USDA under a new Secretary of Agriculture in 1921. He remained one of the Department's leading agricultural economists until his death. A prolific writer, he authored more than 300 writings, including the important book *Balancing the Farm Output* (1927) which contained some elements of the farm relief programs instituted in the Great Depression of the 1930's. Quite enough contributions from any man! ■