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*The Radio Farm School:*  
Kansas State College Pioneers Agricultural Extension by Radio, 1922-1928

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## Abstract

When radio broadcasting began, agricultural educators quickly realized the potential of the new medium to reach the nation's millions of farm families. In the early 1920s, the USDA began transmitting weather forecasts and crop reports, while many land grant universities constructed radio stations to deliver agricultural information. In 1924, extension staffers at Kansas State Agricultural College developed a wide-ranging series of radio lectures on farm topics and promoted them as "*The College of the Air*" and "*The Radio Farm School*." These programs featured presentations on such topics as crops, livestock, poultry, and home economics by various members of the school's agriculture faculty. The broadcasts attracted listeners throughout Kansas and from several other states as well.

In 1925, the President of Kansas State College, William Jardine, was appointed U.S. Secretary of Agriculture. Under Jardine's direction, the USDA greatly expanded its radio extension efforts, forming a new Radio Service to create information programming for nationwide distribution. In 1928, the USDA began producing a daily segment for NBC's *National Farm and Home Hour*, a program that soon became a listening habit for millions of farm families. This paper draws upon archival sources to document Kansas State's early radio efforts and examine the influence of William Jardine on the expansion of USDA radio efforts in the 1920s.

With the passage of the Smith-Lever Act in 1914, Congress established federal funding for the burgeoning agricultural extension movement. New farm agents and home agents were hired with the aim of bringing farm families up to date information on new agricultural technology, improved farming methods, and better home living. Land grant colleges worked closely with the USDA and state extension agents in this effort. Kansas State Agricultural College was fairly typical in creating a separate Division of Extension headed by a Dean. The coming of WWI intensified the effort to modernize agriculture and the extension effort greatly expanded (Danbom, 2006; Willard, 1940).

The arrival of radio broadcasting in 1920 ushered in a new era of extension as agricultural educators quickly realized the potential of the new medium to reach the nation's millions of farm families. In the early 1920s, the USDA began transmitting weather forecasts and crop reports, while many land grant universities constructed radio stations to deliver agricultural information. In 1924, extension staffers at Kansas State Agricultural College experimented with an ambitious series of radio lectures on farm topics, promoting them as "*The Radio Farm School*." These programs featured presentations on such topics as crops, livestock, poultry, and home economics by various members of the school's agriculture faculty, attracting listeners from Kansas and several other states. When Kansas State President William Jardine was named Secretary of Agriculture in 1925, several colleagues involved in the extension by radio project accompanied him to Washington to fill new positions at the USDA and were influential in the development of a series of new agricultural information programs at the national level. This paper examines the development of Kansas State's pioneering radio extension efforts and documents the impact of Kansas State personnel on the evolution of USDA radio service during the Jardine administration.

### **Review of the Literature**

Several sources provide insight into the early development of agricultural extension by radio. The USDA's official centennial history details the accomplishments of the Jardine administration, including the organization and functioning of the Radio Service (Baker, Rasmussen, Wisner, & Porter, 1963). Agricultural historian Reynold Wik has discussed the USDA's involvement in the development of rural radio (Wik 1981, 1988), and the present author's previous research has examined the evolution of rural radio from several perspectives (Craig, 2000, [2001](#), [2006](#), [2009](#), 2011).

Documentation of the early Kansas State *College of the Air* experiment is found in the history of the school's College of Agriculture (Willard, 1940), while Richard Ridgway's 1972 MA thesis on the history of radio station KSAC contains interviews with college personnel involved in producing early programs. Included in Ridgway's work is a copy of Kansas State's 1924 *Radio Extension Course Catalog*.

During his career, William Jardine compiled several personal scrapbooks and a number of his clippings from newspapers and magazines detail the extension radio project at Kansas State. Jardine's files are housed at the Library of Congress ("Every Kansas Farmstead," 1924; "Farmers Now Go to College," ca. 1924; "This College of the Air," ca. 1924; "Farmers Attend Radio College," ca. 1924).

Archival records of the National Broadcasting Company housed at the Wisconsin Historical Society Archives provide insight into NBC's early contacts with the USDA,

especially regarding cooperative efforts to produce the *National Farm and Home Hour*. Other primary documents were found in the Secretary of Agriculture's records housed at the National Archives and in the Layne R. Beaty Papers at the National Agriculture Library.

In late 1924, agricultural educators from around the nation gathered in Chicago to attend an Agricultural Radio Conference called by the USDA to examine the new medium's potential for farmers. The transcript of the conference presentations contains a wealth of information regarding the nascent state of the early use of radio, including a presentation on the innovative Kansas State experiments by Extension Dean H. J. C. Umberger (USDA, 1924).

### **Kansas State's *College of the Air* Experiment**

In 1924, Kansas State Agricultural College became the first school in the nation to offer a regular schedule of agricultural extension "courses" by radio. These courses involved a series of nightly lectures delivered by Kansas State faculty, focusing on agricultural topics deemed to be of significance to farmers and their families. The effort was experimental and the potential audience small, with fewer than 16,000 Kansas farm families owning a radio (USDA, 1925, p. 6).<sup>1</sup>

The idea for a *College of the Air* series evidently originated with Kansas State agricultural extension editor Sam Pickard. Pickard was a journalist and former advertising executive with a reputation for "unbridled imagination and boundless energy," and much of the driving force behind the ambitious project came from Pickard's forceful personality and powers of persuasion (Ridgway, 1972, p. 39).

After selling the idea to Kansas State President William Jardine and Extension Dean H. J. C. Umberger, Pickard was granted day-to-day responsibility for implementation of the programs. The first hurdle was in finding a radio station over which to broadcast. Although Kansas State faculty and students had experimented with telegraphic radio transmission for several years, at the beginning of 1924 the college did not have a licensed broadcast station. Instead, arrangements were made for the school to transmit for one hour each evening over the relatively powerful station KFKB in nearby Milford, Kansas.<sup>2</sup>

With this agreement in place, the university began airing *College of the Air* in February, 1924. The series consisted of two 25 minute lectures each weekday evening for ten weeks. The courses were written and delivered by various Kansas State faculty members and topics included crops, livestock, dairying, poultry, agricultural economics, and home economics. Despite the program's name and the inferences drawn by press coverage about the series, no attempt was made to duplicate the content of actual Kansas State college courses (USDA 1924, p. 2).

To monitor audience response, the university urged listeners to "register" for radio courses by mailing in their names and addresses and listing the subjects they wished to take. Those who did so were mailed free mimeographed copies of each lecture. At the end of the ten weeks, an exam was given and certificates were awarded to those who passed. Some 967 listeners did register, and while most were from Kansas, there were a significant number from other states and Canada. It was assumed

that large numbers of other listeners had tuned in without registering. The ten-week experiment was deemed a resounding success with Dean Umberger noting that, "results were beyond expectations considerably" (USDA 1924, p.4).

With this successful demonstration, university officials launched ambitious plans for expansion of the service. They obtained state funding to build a new broadcast facility on campus, and construction soon began on a 500 watt station to be designated KSAC. Meanwhile, extension personnel set out to create an extensive schedule of radio courses that would run throughout the entire 1924-1925 academic year. A 25-page *Radio Extension Courses Catalogue* was published listing 27 different course offerings consisting of a total of 332 separate 15-minute lectures (See Table 1).

**Table 1:** Radio Extension Courses Offered by Kansas State Agricultural College during the 1924-1925 School Year.

| Subject         | Number of Courses | Number of Weeks | Number of Lectures | Day of Week | Enrollment <sup>a</sup> |
|-----------------|-------------------|-----------------|--------------------|-------------|-------------------------|
| Agriculture     | 5                 | 32              | 144                | Mon & Tues  | 1560                    |
| Engineering     | 6                 | 32              | 64                 | Wednesday   | 1498                    |
| Home Economics  | 4                 | 32              | 64                 | Thursday    | 1090                    |
| General Science | 12                | 32              | 60                 | Friday      | 2250                    |
| Total           | 27                |                 | 332                |             | 6398                    |

<sup>a</sup> 830 students enrolled in an average of 7.7 courses each.  
Source: USDA (1924) p. 4.

In the catalog's introduction, Dean Umberger wrote that the program "represents the first concerted effort of any educational institution to disseminate a systematic course of instruction by radio" (Kansas State, 1924, inside front cover). Again, the courses were designed for the average Kansas farm listener and made no attempt to cover the same material as the university's actual college courses (Ridgway, 1972).

The new broadcast schedule was ambitious, with lectures every weeknight for eight months. In addition, each evening's program began with a ten minute live musical prelude called *Tuning In*, provided by the college's Department of Music. This was followed by two 15 minute lectures on different topics. A "course" consisted of a series of from eight to 24 lectures.<sup>3</sup>

For example, a listener tuning in at 7:30 on Monday, September 15th, 1924, heard the first of a series of eight weekly lectures on "Famous Hereford and Shorthorn Sires," followed at 7:45 by the beginning of a 16 week series on "Fruit and Vegetable Gardening." The Tuesday program featured an agronomy lecture followed by one on

poultry. Again, listeners were encouraged to formally enroll in as many courses as they wished and those who did so received printed copies of the lectures mailed the day following the program. At the conclusion of each course, exams were mailed to registrants and those who passed were awarded certificates. Courses were free for Kansas residents, but a charge of 50 cents per course was imposed on those from other states (Kansas State, 1924).<sup>4</sup>

Kansas State administrators saw radio as having several advantages in extension work. Not only did it allow for the dissemination of timely information to farmers in their own homes at a relatively cheap cost, but university faculty could directly participate in the program without leaving campus, and so more were able to lend their expertise (USDA, 1924, pp 1-2).

Kansas State President William Jardine praised the experiment, writing that,

I know of no other means of self improvement attainable at so little expense and effort as that afforded by radio. If advantage is taken of such a program as is to be broadcast from this station, the farm family should be relieved to a large extent from its isolation, the life of its members broadened, their interest in farm life and success in it increased and substantial additions made to their general as well as agricultural education. (Kansas State, 1924, inside back cover)

Another advantage of the experiment was the opportunity for Kansas State to garner national publicity. The new medium of broadcasting was an exciting novelty and the popular press was eager to publish stories about new applications. Sam Pickard, the former adman turned extension editor, sent out press releases touting the Kansas State experiment, with the result that numerous news stories and feature articles appeared in newspapers and magazines around the country.

One example is a six-page feature titled "Every Kansas Farmstead can be a College Classroom," appearing in the November, 1924, issue of *Radio in the Home*. The article contains numerous photographs of the Kansas State campus, groups of listeners, several of the on-air presenters, and a large portrait of Kansas State President William Jardine. The story's copy declares that the program has become "an established agency in modern education," and portrays a future in which radio will transform farm life by making "college courses" available to rural families with the twist of a dial ("Every Kansas Farmstead," 1924).<sup>5</sup>

Additional national exposure came through a more formal channel. By December, 1924, interest in the use of radio to reach farm families had grown to such a pitch that the USDA called a one-day Agricultural Radio Conference. Some 85 educators, extension personnel, and agricultural journalists from around the nation met in Chicago to discuss radio's future as a rural medium. Kansas State was represented by Dean Umberger who presented a detailed account of the *College of the Air* experiment (Craig, 2009, pp. 27-28; USDA 1924, pp. 1-5).

By the end of 1924, construction on the new Kansas State radio station, KSAC, was completed and the nightly *College of the Air* broadcasts were shifted from Milford to the new on-campus facility. Having its own station gave the school much more flexibility

in scheduling broadcasts, but also created the burden of filling an entire daily program schedule. In addition, KSAC's much less powerful transmitter meant a reduced broadcast range and a smaller potential audience ("KSAC station makes debut," 1924).

By early 1925, the novelty and excitement of the *College of the Air* experiment was being supplanted by an awareness of the tremendous resources required to produce the live nightly series. As Dean Umberger put it, "[We] did not foresee the magnitude of the undertaking, or adequate finances and personnel probably would have been provided before an attempt was made to broadcast such elaborate courses" (Umberger, quoted in Ridgway, 1977, p. 43).

One Kansas State student volunteer, Morse Salisbury, later related how it was largely the enthusiasm of Sam Pickard that kept things going. Pickard drafted Salisbury to help out with announcing for the *College of the Air*, but, as Salisbury explained, "I did feel that it was a bit thick for even a good friend to ask me to give up one or two evenings every week for a job which, so far as I could see, brought me no official recognition, and which certainly paid no money" (Salisbury, quoted in Ridgway, 1972, p. 54). The fledgling radio service would soon be faced with new challenges when, in early 1925, several key Kansas State's staff members left the college to accompany President William Jardine to Washington to take over the USDA.<sup>6</sup>

### **William Jardine Becomes Secretary of Agriculture**

In 1925, President Calvin Coolidge selected Kansas State College President William Jardine to be the nation's new Secretary of Agriculture. Jardine had much to recommend him. He was a ranch-reared Midwesterner with credentials both as a farmer and an agricultural educator. Equally important was his publicly-stated opposition to the controversial McNary-Haugen agriculture bill in Congress, which proposed to fix crop prices as a way to aid struggling wheat farmers. Jardine had long expressed the philosophy that government's proper role in supporting agriculture was to provide the tools for the farmer to succeed rather than to engage in price supports. In an article written just before his appointment, he argued that farmers needed to become better managers, and that the function of institutions seeking to improve agriculture "should be to provide the individual farmer with the best possible opportunities to become acquainted with, and to adopt, the latest proved improvements in production." As Secretary of Agriculture, Jardine would prove a loyal ally in Coolidge's battle against price supports (DuPuy, 1925; Jardine, 1925, p. 84).<sup>7</sup>

The concept of agricultural extension education by radio fit Jardine's philosophy of government support for the farmer perfectly and, as secretary, Jardine oversaw a significant expansion of the USDA's radio programming efforts. Radio service at the USDA was already at a nascent stage, with the department having begun transmitting weather forecasts and agricultural market reports as early as 1920. By the time of Jardine's arrival, a formal Radio Market News Service had been created to disseminate agricultural prices to stations. In addition, the department was conducting annual national surveys of Extension Agents to determine the extent of farm radio ownership (Craig, 2009; USDA, 1923, 1924, 1925b; Wik, 1988).

The new Agriculture Secretary quickly set about a reorganization of the USDA's Washington staff, including an expansion of the radio mission. To help out in this task,

Jardine hired several Kansas State colleagues. Kansas State Journalism Department head Nelson Crawford was named Director of the USDA's newly-created Office of Information. Morse Salisbury, a Kansas State graduate student and journalism instructor, became Crawford's new assistant, and Sam Pickard filled the new position of Chief of Radio Service. Former Kansas State graduate student Milton Eisenhower became Jardine's personal assistant and Josephine Hemphill, a Kansas State home economist, was hired to oversee new USDA women's radio programs (Baker, *et al.*, 1963).<sup>8</sup>

This new cadre set to work, with results as described in the 1926 *Agriculture Yearbook*:

The department has inaugurated a comprehensive radio program covering the full range of its activities. A new section in the Office of Information, known as the radio service, has been established to originate programs; to make contracts with commercial stations as an outlet for these programs; and to adapt timely subject matter for radio presentation. (USDA, 1927, p.56).

Ninety stations were reported to have agreed to carry USDA programming "for an average of half an hour daily." The department's radio lineup consisted of 20 programs each week, including *Noonday Flashes*, a daily conversation between a county agent and a farmer who discuss current problems, and *Housekeepers' Chat*, a 15-minute weekday program for women. However, the USDA's major effort went into producing *The United States Radio Farm School*, an attempt to recreate the Kansas State experiment on a national scale (Pickard, 1926; USDA, 1927).<sup>9</sup>

*The United States Radio Farm School* premiered over 50 radio stations on October 4th, 1926, with lectures originating from 25 different locations around the country. Courses consisted of eight 15-minute lessons given once each week on topics such as "Livestock Breeding," "Poultry Houses," and "Problems in Dairy Cattle Breeding."

Lessons take the form of experience talks and imaginary inspection tours. Radio "schoolmasters" at the different stations conduct the classes. All lesson material is dramatized so as to catch and hold the interest of the listeners. Printed lessons are mailed to all enrolled students. (USDA, 1927, p. 26)

Students who wished to receive a USDA certificate of completion were expected to not only listen to the lectures, but also report on one or more laboratory assignments. As *Country Gentleman* pointed out, "the farm will be your laboratory and you will be a student in the great 'classroom' that will literally cover the nation" (Mahanay, 1926).<sup>10</sup>

By December 1927, more than 500,000 listeners were reported to have enrolled, an especially impressive number considering that radio ownership by farmers nationally was estimated to be only about one million ("500,000 Have Enrolled," 1926; Pickard, 1926).<sup>11</sup>

*The United States Radio Farm School* was far and away the USDA's most ambitious radio extension effort, requiring coordination of multiple originating sources

and a substantial time commitment by both stations and listeners. The USDA's shorter programs such as *Noonday Flashes* and *Housekeepers Chats* demanded less listener involvement and allowed stations more flexibility in scheduling. In addition, these shorter features were distributed to stations as paper scripts, requiring no actual program production by the USDA. Although publicly touting the success of *Radio Farm School*, some USDA staffers questioned whether the program was worth its high cost.

In early 1927, Secretary Jardine asked Radio Service Chief Sam Pickard to fill a temporary position as secretary to the newly-formed Federal Radio Commission (FRC). In this important role, Pickard would be positioned to promote USDA interests in the new regulatory agency tasked with charting the future of the nation's radio system. When Pickard was made permanent FRC secretary in April 1927, Morse Salisbury was named to replace him as USDA Chief of Radio Service. *The United States Radio Farm School* had been one of Pickard's pet projects, but after his departure, Salisbury deemed the program too costly and ended it in early 1928 (Baker, 1981, p. 16; U.S. Federal Radio Commission, 1927).<sup>12</sup>

Although the *Farm Radio School* proved too expensive, the USDA was soon presented with an opportunity to reach the growing national farm audience on a daily basis at a relatively low cost. This was made possible through a unique cooperative programming effort with the newly formed National Broadcasting Company (NBC).

### **The Beginnings of the *National Farm and Home Hour***

In 1926, RCA created NBC to provide programs to national networks of interconnected radio stations. Included in the new company's plans was an extensive agricultural program service promoted by NBC's first president, Merlin H. Aylesworth, who described himself as having "a very deep interest in agriculture," citing his personal ties to both farming and agricultural education.<sup>13</sup>

NBC hired agricultural journalist Frank Mullen to become its first Director of Agriculture and during the network's first year of operation, Mullen organized radio coverage of several national agricultural events while planning further network agricultural programs. One of his early memos outlined what he saw as NBC's goals in developing network agricultural programming: (1) to serve listeners interested in agriculture (both rural and urban); (2) to promote audience good will; (3) to build and maintain radio set circulation in country and small towns; and (4) to provide a service to the government. Implicit in these goals was also the network's need to demonstrate to government regulators that NBC and its affiliates were fulfilling the requirement of the 1927 *Radio Act* that broadcasters using the public airwaves had to serve the public interest (National Broadcasting Company, 1932; Archer, 1939, p. 294; Biggar & Mullen, 1969; Mullen, 1927, March 3rd).<sup>14</sup>

In 1927, Mullen proposed a major new network program that would reach the growing farm audience on a daily basis. It would be aired around the noon hour, when many farmers came home from the fields, and would be a blend of entertainment and information, avoiding the straight lecture format that tended to dominate earlier agricultural broadcasts. Mullen also conceived of offering the USDA a daily block of time on each day's show to do with as they saw fit. NBC would bear all costs for distributing the program, and would make available its Washington studio for the USDA's use in

producing the daily segment. Jardine quickly agreed to the plan (Aylesworth, 1928, September 18th; Biggar & Mullen, 1969; Jardine, 1928, September 25th; Mullen, 1927, September 19th).

*The National Farm and Home Hour* premiered on October 2nd, 1928, originating live from NBC's Chicago studios, then switching to Washington for the USDA segment. The show featured live music and other entertainment interspersed with information segments provided by not only the USDA, but many other national agricultural organizations as well.

The USDA's daily contribution varied in length over the years from 15 to 20 minutes, and generally began with a roundup of the latest agricultural market price reports followed by a summary of the news. The remaining time was filled with a wide variety of short features such as homemaking tips, a talk by the Secretary of Agriculture, 4-H Club news, or music by the Marine Corps Band (Brunner, 1935; Crabb, 1982; Salisbury, 1932, May 23d).

*The National Farm and Home Hour* proved to be a resounding success for both NBC and the USDA, airing as a daily program until the late 1940s. The program put the USDA into daily contact with an estimated audience of ten million listeners, most of them farmers and their families.<sup>15</sup> In early 1929, William Jardine stepped down as Agriculture Secretary, leaving the USDA fully involved in the use of radio to reach the nation's farmers. This connection proved vital during the coming years of the Great Depression.

### **Conclusion**

The arrival of radio broadcasting captured the imagination of the entire nation, and many groups embraced the new technology as an answer to a myriad of the nation's problems. Agricultural educators across the nation immediately saw radio's potential for reaching the isolated and widely dispersed farm population. At the same time, the Progressive Era had awakened an awareness of the need for better rural education and more comprehensive ways of communicating the latest research findings to farmers. At Kansas State College and other land grant universities around the nation, the new technology of radio seemed to offer limitless possibilities for agricultural extension.

One aspect of the *Radio Farm School* experiment was the notion of framing extension programs as "courses" offered by radio "schools." The USDA even used the term "schoolmasters" to describe its lecturers. Although the idea that listeners could "attend college by radio" played to postwar dreams of upward mobility, the *Radio Farm School* experiment never really fulfilled that promise. The radio courses were never intended to duplicate the content of actual on-campus study, despite the impression left by publicity. At the same time, it is clear that those producing the programs greatly underestimated the scope of the task they were undertaking. In the long run, such elaborate efforts could not be sustained and, as the USDA later demonstrated, extension information could be disseminated much more cheaply and effectively through short daily programs.

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## Notes

1. Other land grant colleges also had begun experimenting with radio. For example, by 1921, the University of Wisconsin's WHA was transmitting weather forecasts and agricultural market reports (Baker, 1981; [Davidson, 2006](#)).
2. At first, program participants travelled to Milford for the daily broadcasts, but a leased interconnection by telephone line soon eliminated the journey. The 5,000 watt KFKB was owned and operated by patent medicine promoter "Doctor" John Brinkley who would later become infamous when federal regulators denied the station a license renewal based on his medical advice programs.
3. Evidently all broadcasts were live since sound recording was still in a primitive state.
4. In early December 1924, Dean Umberger reported that 830 listeners had enrolled in an average of 7.7 courses each (USDA, 1924, p. 4)
5. Other examples of national publicity include "A College of the Air," 1924; "Farmers Now Go to College," 1924; and "Farmers Go to College by Radio," 1924.
6. KSAC continued to serve its audience with a somewhat more modest lineup of on-air courses and other programs (Ridgway, 1972).
7. Although Kansas State's radio experiment received wide publicity, there is no direct evidence that this influenced Coolidge's selection of Jardine to be Secretary.
8. Milton Eisenhower was the younger brother of Dwight David Eisenhower. Milton went on to have an illustrious career in government and education, eventually serving as president of three universities, including Kansas State.
9. The radio industry was still very much in a developmental stage, and advertising was yet to emerge as a significant source of revenue. Stations struggled to find cost-effective ways to fill airtime, so the offer of free program content from a credible source such as the USDA was welcome.
10. Sources disagree on the number of stations carrying the program. *Agriculture Yearbook* (USDA, 1927) reports 50 while the earlier article by Mahanay (1926) claims "approximately 100." This suggests station interest may have waned quickly.
11. It is unclear whether the 500,000 figure reported in press accounts represents the number of total listeners or the total course enrollment, with a single listener able to register for multiple courses. The latter method was used by Kansas State in reporting its numbers.
12. Pickard was later appointed an FRC commissioner and played a key role in laying out the 1928 national plan for radio frequencies that greatly expanded rural radio coverage (Craig, 2009).
13. Aylesworth's interest in agricultural radio was unfeigned. His father was an agriculture educator and served as president of Colorado Agricultural College (now Colorado State University) from 1899-1909.
14. U.S. broadcasting stations are permitted to operate on government-allocated frequencies on the condition that they serve the "public interest, convenience and necessity." Failure to do so would have theoretically put station licenses in jeopardy (Barnouw, 1966, pp. 195-201; Robinson, 1943, chapter 5).
15. After the arrival of television, *Farm and Home Hour* continued for another 15 years as a Saturday morning feature sponsored by Allis Chalmers.