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Henry A. Wallace as an

Henry A. Wallace was many things— heir to a legacy of genuine concern for farmers, communicator par excellence, plant breeder, statistician, economist, Secretary of Agriculture, Vice President. This profile concentrates on his life and contributions previous to becoming Vice President of the United States with particular attention to his contribution to the field of agricultural economics.

**By William G. Murray
and Raymond R. Beneke**



Henry Agard Wallace was born October 7, 1888, on a farm near Orient, Iowa. From the time he was old enough to comprehend, Henry A. was influenced by his grandfather, "Uncle Henry" as he was known at the turn of the century throughout the corn belt. Uncle Henry, born of Irish immigrants on a Pennsylvania farm, was an ordained Presbyterian pastor who ministered to the wounded and dying during the Civil War. He then served several congregations before moving in 1877 to a farm near Winterset, Iowa. The Iowa farm setting was compatible with his independent but compassionate nature. Once freed from the pulpit, Uncle Henry began a long career as farmer, journalist, and religious philosopher. Young Henry A. heard and read his grandfather's views on farmers' moral obligation to protect the land and maintain "the stored energy of the farm." He listened to lectures on the brotherhood of man and the Golden Rule. He heard his grandfather crusade against robber trusts, railroads, and immoral financiers. Uncle Henry wrote columns for local newspapers, then progressed to an area magazine and eventually purchased a small publication which he developed into the *Wallaces' Farmer*. The latter became a powerful, widely read weekly publication in the Midwest. During the years he controlled the magazine, Uncle Henry wrote a weekly column entitled "Our Sabbath School Lesson," which was read by multitudes of rural families, and undoubtedly his grandson, Henry A., as he was growing up. Through his crusading editorials and fiery oratory, Uncle Henry achieved such influence throughout the Midwest that by 1896 he was a serious contender for Secretary of Agriculture.

Henry A. was also influenced greatly by his father, Henry Cantwell Wallace, who was the eldest child of Uncle Henry and Nancy Cantwell. Henry C., born in 1866, graduated from Iowa State College at Ames and then after spending five years as a dirt

farmer he accepted a position as an assistant professor of agriculture at Ames and moved his family, including Henry A. who was four years of age, from the farm.

The Iowa State Environment

Experiences at Iowa State College made lasting impressions on Henry A. and piqued his interest in how research could better the welfare of farmers. For example, George Washington Carver, who would later become a celebrated scientist at Tuskegee Institute, was a graduate student at Iowa State

working with plant genetics when Henry A. was growing up in Ames. Carver invited young Henry on botany expeditions, introduced him to the mysteries of plant fertilization and, according to Henry A., encouraged his scientific interest to the point of greatly exaggerating Henry A.'s botanical ability.

In 1904 when Henry A. was 16 years old, Uncle Henry brought Perry D. Holden, a noted corn authority, to Iowa to lead a corn train across the state loaded with exhibits to teach farmers to use the best seed to increase corn yields. Holden encouraged Henry A. to conduct his own experiment on the productive capacity of specially selected seed corn versus seed from ordinary ears. Much to everyone's surprise there was no discernible difference in yield among Henry A.'s plots. Later repetitions of the experiment produced the same results. This unexpected outcome sparked a search by Henry A. for the true determinants of productive capacity—a search which continued for years.

Henry A. entered Iowa State College in 1906 and pursued his interest in plant genetics. While a student in 1907, he wrote an article on his experiments for the *Wallaces' Farmer*. Also in 1907 he wrote of his experiences on a walking trip through Iowa, "On the Trail of Corn Belt Farming." Later he investigated the development of corn in Mexico and summarized his findings in an article entitled "The Aztecs as Geneticists." While still a student and in the years immediately following graduation, he worked diligently on his own experimental plots. He developed inbred lines, experimented with differing crossing patterns, and laid the groundwork for the system of double crossing that was to render hybrid corn economically feasible. During this period he worked closely with H. D. Hughes, a pioneer crop scientist at Iowa State, and M. L. Mosher, who later became the first farm adviser in Woodford County, Illinois, and a national leader in farm management research and extension. These colleagues reinforced Henry A.'s determination to develop new technologies through research and to introduce these technologies to farmers.

Economics, Too

Much like his grandfather and father, Henry A.'s interests ranged well beyond increasing crop yields. He became a great believer in observing and manipulating data that showed the rela-

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Agricultural Economist

tionships among production and prices. He urged others to see for themselves how variations in the quantity produced were influencing farm product prices. Reflecting the strong belief in empiricism and economics, he later wrote: "It is as essential for students at agricultural colleges to do laboratory work in economics as it is for them to spend such a large part of their time in chemical, geological, or botanical laboratories."

Henry A.'s first taste of formal instruction in economics was a course at Iowa State taught by Benjamin Hibbard, a forceful, able scholar who later became an influential leader in agricultural economics circles. In this course Henry A. generally found confirmation of his grandfather's and his father's views on the folly of a high tariff policy. Hibbard also reinforced Henry A.'s skepticism about the benefits of unrestricted competition among farmers, instilled first by his grandfather and later by his father. Hibbard's belief in a role for government in agriculture was persuasive to Henry A.

In 1912, Henry A. made his first trip to Europe. While there he made in his own words, "a statistical study," of Bavarian output per man year to compare with the output obtained on Iowa farms. Here we see the first manifestation of Henry A.'s fascination with high output per worker and its relation to high income per worker—a theme to which he was to return again and again during his public life.

In this particular study he concluded that the Iowa farmer produced about five times as much as his counterpart in Bavaria. He published these results as part of a travel series in the *Wallaces' Farmer*. Thomas Nixon Carver, a Harvard agricultural economist, became interested in the comparisons and arranged to stop in Des Moines on a trip so that he could discuss the work. Carver was surprised to find that Henry A.—not his grandfather—was responsible for the work.

Wallace began to cultivate an interest in agricultural prices in 1913 at the time he was beginning to conduct experimental work on cross breeding. The potential usefulness of statistics in interpreting experimental results led him to inquire into the fundamentals of that newly emerging discipline. Wallace reported, "I ran across the work of H. L. Moore, the Columbia University professor, he had put out some very careful statistical analysis involving the relation of independent variables to a dependent variable, expressing them by regression lines and correlation coefficients." Wallace's exposure to Moore's work led to an intensive analysis of agricultural prices with particular interest on the determinants of corn and hog prices.

Henry A.'s analysis of agricultural prices led to a book, *Agri-*



Henry A. Wallace in 1921 at the age of 33.

Agricultural History Branch, ERS, USDA.

cultural Prices, in 1920. In its preface he gives credit to Edwin Nourse, who was then on the staff at Iowa State and who would later become a national figure in agricultural economics under Harry Truman and the first Chairman of the Council of Economic Advisers to the President. *Agricultural Prices* summarized the conclusions Henry A. had reached in his price analysis studies. The most important conclusion was one which disturbed him a great deal and one he was never to forget. He summarized it as follows: "Undeniably the tendency exists among standard agricultural prices for small crops to bring in a greater return than large crops. In other words, the demand for farm products is inelastic." Others had made a similar observation, but unlike Henry A., they had not recognized its profound implications for American farmers. This fundamental principle was to guide his thinking and actions as long as he was active in farm affairs.



Henry A. Wallace (right) with Raymond Baker in the early 1930s. Baker was the first corn breeding employee of Pioneer and founded and directed Pioneer's breeding program from 1929 to 1971.

Donald N. Duvick

The 1920s

Henry C. was named Secretary of Agriculture by President Warren Harding in 1921. The years as Secretary of Agriculture were not easy—especially following the death of the President in 1924. Henry C. passionately believed that something had to be done to increase exports of farm products. Lowering U.S. tariffs on U.S. imports of nonagricultural commodities seemed to him a logical step to push farm exports to higher levels. Henry A. was of the same mind. Over and over again he emphasized that the United States was no longer sending interest to the European countries with which the latter could buy U.S. farm products. Both Wallaces preached that the United States had become a creditor nation. Both thought it absurd to expect the countries of Europe to buy from us, given the efforts the United States had taken to keep out their potential exports to the United States.

The Wallaces also supported product subsidies for farm exports, a two-price system favored by many rural interests. President Harding at least gave lip service to this approach; however, to his successors, Calvin Coolidge and Herbert Hoover, lower tariffs and export subsidies were an anathema.

Quite unexpectedly Henry C. Wallace died on October 25, 1924. Henry A. was 36 years of age. Within a period of seven years he had lost both his grandfather and his father. He was on his own.

During the early twenties Henry A. had spent considerable time developing his interest in economics and especially in statistics. He interacted with authorities from all over the country—and in later years from all over Europe.

Henry A. had also become acquainted with Henry C. Taylor, a widely known and highly respected agricultural economist, who in 1919 had left his post at the University of Wisconsin to develop an economic research bureau for the Department of Agriculture. Taylor was determined to provide farmers with information about crop prospects and forecasts of farm product input prices. Henry A. was highly supportive of these efforts. He had declared in his 1920 book that, "The highest purpose of our price system should be to tell pro-

ducers truthfully what to do in the future."

Over the years Henry A. had developed and cultivated close contacts at the grass roots level as well. He had written articles for the *Wallaces' Farmer* since his undergraduate days and once he received his B.S. degree from Iowa State, in 1910, he began to write editorials on a more or less regular basis. Sometime in the late teens he joined the American Farm Economics Association and typically attended their annual meetings in December, often presenting a paper.

Beginning in 1925 he became much in demand as a speaker, especially at farm picnics, and Henry himself made the guess that he had spoken at 100 such events. He received nothing more than automobile expenses for his efforts. He came to know well how farm people thought, problems with which they were struggling, and he found it easy to empathize with them. Their problems became his problems.

Again and again Henry A. admonished farmers in editorials and grass roots speeches to control production. He fashioned and attempted to popularize the slogan, "More clover, less corn and more money." He argued in his editorials that farmers could avoid price disasters "by giving due attention to the early forecasts and intention reports of the

departments (of agriculture) officials." In the meantime Henry A. became better exposed to national policy issues.

A Conversion

Difference over national policy contributed to Henry A.'s change from the Republican Party to the Democratic Party.

In spite of the forecasts of depressed farm prices put forward by the outlook group within the Department of Agriculture, farmers failed to cut back production during the 1920s. Agitation for action on the part of the government was widespread in the press and among rural legislators. Pressure focused on a concept embodied in legislation called the McNary-Haugen Act. Fundamentally, it envisioned a scheme to subsidize exports of U.S. farm commodities. Wallace supported the measure because it proposed overt action on the part of the government. However, he considered it flawed because it depended upon voluntary control of output by producers. President Coolidge vetoed two versions of the legislation. Henry A. was especially disconsolate when President Coolidge ordered his Secretary of Agriculture, William Jardine, to fire Henry C. Taylor for his sympathetic view of the McNary-Haugen concept.

Thus, in 1928, despite his grandfather and father's century of support for the Republican party, Wallace campaigned for Al Smith, the Democratic candidate, seeing him as more sympathetic to effective farm legislation. Hoover was elected and proceeded to push through the Congress the Agricultural Marketing Act of 1929 which established a Federal Farm Board with a revolving fund of \$500 million "to promote the effective merchandising of agricultural commodities in interstate and foreign commerce and to place agriculture on a basis of economic equality with other industries." Wallace opposed the bill because it contained no provision for controlling production but relied instead upon the voluntary action of producers.

Meanwhile, in 1929 Wallace left for Europe. He was invited to

the International Agricultural Economics conference in England financed by Leonard Elmhirst. In his memoirs he credits Dean Ladd and George Warren of Cornell with arranging his invitation. Wallace had opportunities to interact with representatives from many countries and spent several months traveling in Europe following the conference. He returned deeply disturbed by the reaction of Europeans to our trade policy—which he said amounted to our insisting that France, Germany, and England pay war debts while at the same time turning back their exports with our high tariffs, thus denying them the foreign exchange with which to make payments. Wallace predicted that unless the U.S. mended its ways, there was trouble ahead in Europe.

Voluntary Domestic Allotment Plan

The Federal Farm Board was soon buried in mountains of wheat and cotton. The experience of the Farm Board only reinforced Henry A.'s conviction that controlling production was the key to higher farm income. Henry A.'s convictions were reinforced by many agricultural economists who had a strong interest in fashioning a program which was effective, made economic sense, and had a chance to be politically acceptable. The Domestic Allotment Plan put forward by Richard T. Ely, John D. Black, and Milburn Wilson was a refined version of a plan put forward in 1927 by William J. Spillman, a veteran USDA economist. All of these plans called for control of production through an allotment device and all provided for a processing tax to render the plans self-financing.

Although the allotment idea did not originate with Wallace, he did all he could to develop support at the grass roots for such a program. During the late 1920s and early 1930s, the talents of leading agricultural economists all across the U.S. seemed to be mobilized behind an effort to create an effective control program. The names of Spillman, Black, George Warren, Henry C. Taylor, Richard Ely, M. L. Wilson, Mordacai Ezekiel, Howard Tolley, and Benjamin Hibbard were all associated with the effort. Henry Wallace seemed to know them all. Some he had "met" through correspondence about ideas he had advanced in his editorials. Others he met through his activities with the American Agricultural Economics Association. In addition, while his father was Secretary of Agriculture, he was in and out of the Department frequently.

More Than Agriculture

Henry Wallace was not only concerned about agriculture. He came to the view during the mid 1920s that the American economy in general was not functioning as it should. Some blame for this he laid at the doorstep of our monetary policy. He was an early member of the Stable Money Association organized in 1922 and served as vice president to Irving Fisher, the monetary theorist from Yale University. He was a friend of George Warren, who also combined an interest in agricultural economics with study of the monetary system. When Wallace and Warren worried about a stable money supply, their concerns were motivated less by fear of inflation than by the plague of deflation which they thought was responsible, in part, for the economic hardship evident by 1930 throughout the country.

Wallace testified before a Senate committee that the income of the average American could be doubled if the economy were properly managed. His editorials written during the 1920s indicate that he was already concerned with feasible means for

improving economic conditions in the poor countries of the world. These ideas, now commonplace, that greater affluence of working people of the world comes through higher employment and greater productivity, he was to restate time and again as a spokesman for the New Deal during the 1930s.

Secretary of Agriculture

By the 1932 election, Wallace had become a strong supporter of Franklin Delano Roosevelt—the Democratic candidate. After Roosevelt's election several names surfaced as potential Secretary of Agriculture but none as frequently as that of Henry A. Wallace. John D. Black, at the peak of his influence in his post at Harvard, wrote the President and urged Wallace's nomination. Neither before nor since has a newly appointed Secretary of Agriculture had at his command such an impressive array of talented and dedicated agricultural economists. There was surprising unanimity among them on what had to be done and together they set about devising legislation to restrain farm production in order to increase farm prices.

During his years as Secretary of Agriculture Wallace became increasingly critical of what was happening in the other sectors of the economy. He became convinced that the performance of the economy in total could be dramatically improved with appropriate economic policies. As Secretary he increasingly spoke out emphatically on national and international policy issues. His concern with broader economic issues attracted the favorable attention of President Roosevelt. In July of 1940 the President arranged for Wallace's nomination as Vice President. Although not a popular choice among many of his

fellow Democrats, Wallace became Vice President when Roosevelt was elected for a third term.

Wallace became Vice President when Roosevelt was elected for a third term.

Pioneer Hi-Bred International, Inc.

From his days as a college student, through the teens and the 1920s, Wallace continued to experiment with inbreeding and crossing inbred lines. For every success there were many failures.

Interestingly, Wallace's work was not conducted in secrecy. Through his editorials he shared with his readers his trials and tribulations. He welcomed suggestions and questions from his readers. Occasionally when he received a letter which he thought raised questions that might be of broad interest he answered with suggestions in his editorials. Wallace cited helpful articles and bulletins on the subject and advised his readers concerning sources for inbred plant material which he thought they might find useful in their experimentation.

On one occasion Henry A., in response to an inquiry, suggested that a beginning corn breeder start with no more than an acre or two, cautioning that plants had to be detasselled in a careful way every day or two for a period of at least ten days.

In 1924 he entered a single cross hybrid in the Iowa Corn Yield Test program where it won a gold medal for high yield. It was offered for sale commercially in 1924. In 1926 he founded the Hi-Bred Corn Company with his brother James and several trusted employees and friends. In 1935, the company became Pioneer Hi-Bred International, Inc. As this is written the stock market has placed a value in excess of two billion dollars on the company. Much of the stock is held by descendants of Henry A. Wallace and by persons who helped organize and propel the enterprise to its incredible financial success. 