



Plant Pathology

COLLEGE OF AGRICULTURAL & LIFE SCIENCES
UNIVERSITY OF WISCONSIN-MADISON

History Note No. 1

October 2025

Russell Laboratories named for Dean H. L. Russell

German immigrants were the major group of settlers coming to Wisconsin from 1846 to 1900 and with these immigrants came their farming traditions, include cabbage growing and sour kraut production. Along with the seeds that the immigrants brought were plant pathogens.

In the 1880's a vegetable growing industry was thriving up in an area between Racine and Kenosha in the very south eastern part of Wisconsin. The major crops were onions, cabbage and potatoes. A local homeopathic physician, Dr. J. J. Davis, from Racine had a hobby of botanizing. It was brought to his attention that the cabbage crop was



Cabbage field, Race County, WI. 1895, H. L. Russell and J. J. Davis inspecting field

seriously affected by a malady. Being a man of action, he wrote a letter to Dean W. A. Henry, College of Agriculture, UW and to USDA in Washington, DC. Fortunately, Dean Henry knew of a recently hired faculty member (1893), H. L. Russell, who had graduated from UW in 1888, and then received an MS from John Hopkins University in 1890. Russell then traveled to Europe and studied under Robert Koch and Louis Pasteur. In 1890, he returned to John Hopkins University where he received a PhD in 1893 with a dissertation titled "Bacteria in their relation to vegetable tissue". Next stop



Black rot of cabbage
Source: Cornell University

Chicago where he served as a fellow for a short time before joining the University of Wisconsin as an agricultural bacteriologist. Since Assistant Professor Russell had training in bacteriology, he seemed the logical choice to send to the Racine area. This would have been no small task to get there, as there were no cars, and he most likely traveled by train from Madison to Milwaukee then to Racine. When he arrived in the area, he would have needed a horse and buggy to get to the field. Once there, he examined the "sick" plants and took specimens back to the laboratory. Dr. Russell made a preliminary report in August 1895 at the annual meeting of the American Association for the Advancement of Science. USDA also responded by sending Dr. E. F. Smith to the Racine area in 1897, and he went on to publish the first complete description of this disease, black rot of cabbage. Russell's complete report did not appear until 1898. These two reports are the first evidence of scientific studies of plant diseases in Wisconsin.



H. L. Russell, source UW Archives



Source:
hub.russell.wisc.edu

Dr. Russell became Dean of the College of Agriculture in 1907 and recognized the importance of plant diseases as a factor limiting agriculture. In 1910, he created the Department of Plant Pathology with the expectation that the faculty would focus their efforts on solving grower plant health problems. Dr. L. R. Jones, a USDA scientist and previous faculty member at the University of Vermont, was hired to be the first faculty member of this new Department (more on L. R. Jones, History Note no. 2). Jones was highly respected among plant pathologists as he had served as the first APS President and first chair of the editorial board for Phytopathology.

Sources:

<https://www.wisconsinhistory.org/Records/Article/CS2041#:~:text=Germans%20were%20the%20largest%20immigrant,and%20economic%20upheavals%20in%20Europe.>

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E. F. Smith's 1898 Black Rot of Cabbage Report v. 68: <https://babel.hathitrust.org/cgi/pt?id=uiug.30112019298709&seq=10>

H. L. Russell: <https://www.wisconsinhistory.org/Records/Article/CS12573>

E. F. Smith-Pioneer Plant Pathologist. Ann. Rev. Phytopathol. 1983. Vol. 21:21-27

With one Foot in the Furrow, P. H. Williams and M. Marosy, Chapter 1 by J. C. Walker

<https://vegpath.plantpath.wisc.edu/diseases/brassica-black-rot/>

<https://www.apsnet.org/edcenter/apsnetfeatures/Pages/APS100.aspx#:~:text=The%20Society's%20Flagship%20Publication%3A%20Phytopathology&text=The%20first%20editorial%20board%20was,Donald%20Reddick%20as%20business%20manager.>

Jones was president of APS in 1909: <https://www.apsnet.org/members/leadership/history/Pages/default.aspx>

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