Richard L. Witz records, 1946-1989
1 linear ft.

OVERVIEW

Access: The collection is open under the rules and regulations of the University Archives.

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Citation: Richard L. Witz Records, University Archives, North Dakota State University, Fargo.

BIOGRAPHY

Richard Lucian Witz was born on January 12, 1916 at New Lisbon, Wisconsin to Myrl and Irma (Bullis) Witz. While going to school at the Juneau County Rural Normal and New Lisbon High School, Witz worked on his family farm with a pure bred Guernsey herd, which he helped win multiple ribbons and awards at fairs and dairy shows within Wisconsin.
Witz received his Bachelors in agricultural engineering in 1939 from the University of Wisconsin and his Masters in agricultural engineering from Purdue University in 1942. He married Marjorie Hoover in 1941, and they had two sons, John and Fred.

Prior to coming to North Dakota Agricultural College (NDAC), he was a research assistant at Purdue from 1940-1942 and he worked as an agricultural extension engineer at Michigan State from 1942-1945. Witz joined the NDAC in 1945 as an Assistant Professor of Agricultural Engineering. Two years later he was promoted to Associate Professor and became a Professor of Agricultural Engineering in 1957.

His early research areas included: application of electricity for agricultural problems, such as: refrigeration of farm products, frozen food storage and home heating. His later research involved the reduction of labor and improvement of farm production; materials handling research; environmental controls for livestock and stored agricultural products. In addition to his teaching in agricultural engineering, he developed courses for engineering and agricultural students in electricity and utilities, as well as a class in household equipment for the College of Home Economics.

While at NDSU In 1981 he was selected for the Faculty Lectureship and presented a talk titled “Lighting the Prairie” in 1981, and in 1986, as a professor emeritus, he was selected by Blue Key for their prestigious Doctor of Service Award.

He was active in the North Dakota Academy of Science, American Society of Agricultural Engineers, American Society of Engineering Education, Alpha Zeta, Alpha Epsilon, and Sigma Xi. He was named a Fellow of the American Society of Agricultural Engineers in 1979 and received one of their highest honors, the George Kable Electrification Award. In addition he received the Distinguished Service Award from the National Food and energy Council in 1982.

In addition to his professional and academic activities, he was extremely active in the Boy Scouts of America, where he received the Silver Beaver and Silver Antelope Awards. He served as the Chair of the Training Committee and was a member of the Board of Directors of the Red River Council of the Scouts of America. He was also active with FFA, Kiwanis, Faith Methodist Church, and the North Dakota State Historical Society.

Witz retired from NDSU as professor emeritus in 1983 and passed away at 91 years old on June 16, 2007.

SCOPE AND CONTENT

This records are arranged in three series. The Publications Series (1946-1982) consists of reprints of articles written by Witz during his collegiate career. They are in chronological order by year, than alphabetically ordered within their year. The Academic Series consist of miscellaneous items relating to Witz and his career. Items in this series consist of course outlines, various publications including a lecture, one newspaper clipping, and two tapes. The Slides Series (removed to slide Collection) consists of multiple slides and presentations presented by Witz. Some of the presentations were labeled which provided a title for their folders. Other slides were no labeled and a concrete label could not be identified. Those slides are simply labeled “Unknown Presentation #”.
BOX AND FOLDER LIST

1/1 Finding Aid
1/2 Biographical Data

Publications Series
1/3 List of Publications: 1946-1982
1/4 Publications: 1946-1950

*It Pays to Brood Pigs with Electricity.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1946

*Electric lamb Warmer Proves Successful.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1947

*Livestock Need Water Winter and Summer.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1948

*Operating Time and Power Consumption of Heating Elements in Electric Hot-Water Heaters.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1948

*Frozen Food Unit Added to Experimental Food Laboratory.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1949

*Above Ground Pump Houses.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1950

*Manure Pits.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1950

*The “Nodak” Sewage Disposal System.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1950

1/5 Publications: 1951-1955

*Frost-Proof Livestock Watering Device.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1951

*Oven Fumes in Home Baking.* Bimonthly Bulletin 1952

*Standby Generators Valuable on Many Farms.* North Dakota Agricultural Experiment Station Bimonthly Bulletin 1952

*A Semi-Self-Feeding Hay Shed with Hay Drier.* North Dakota Ag Experiment Station Bimonthly Bulletin 1954

*House Heating with Electricity.* North Dakota Ag Experiment Station Bimonthly Bulletin 1954

*Measuring Resistance of Potatoes to Bruising.* Agricultural Engineering 1954
Lazy Susan Feeder. North Dakota Ag Experiment Station Bimonthly Bulletin 1955

1/6 Publications: 1956-1961

Thawing Silage in Upright Silos. North Dakota Ag Experiment Station Bimonthly Bulletin 1956

Potato Variety Trials. North Dakota Ag Experiment Station Bimonthly Bulletin 1957

Home Heating with Electricity. Ag Engineering Department 1958

Comparison of Methods of House Heating. American Society of Agricultural Engineers 1959

Wiring and Controls for Feed Handling Equipment. American Society of Agricultural Engineers 1961

1/7 Publications: 1962-1965

The Use of Flat-Bottom, Self-Unloading Bins for Metering Grain, Hay and Silage. American Society of Agricultural Engineers 1962


Design of Constant Temperature Rooms for Experimental Studies in Poultry. American Society of Agricultural Engineers 1964

Progress Report on Electrical Applications Research at North Dakota State University and Other Council Activities for 1964. 1964


Ideas and Techniques that are Proving to be Effective in Enrolling Students into the Agricultural Engineering Curricula at North Dakota State University. 1965

Progress Report on Electrical Applications Research at North Dakota State University and Other Council Activities for 1965. 1965

1/8 Publications: 1966-1967

Design of Constant-Temperature Rooms for Experimental Poultry Study. American Society of Agricultural Engineers 1966

Performance of Growing Turkeys as Affected by Environmental Temperature. 1966

The Design and Testing of a Thermistor Transducer to Measure Very Low Air Velocity. 1966

The Effect of Low Volume and High Volume Aeration on a Hog Lagoon. 1966
Effect of Air Velocity, Air Temperature, and Mean Radiant Temperature on Performance of Growing-Finishing Swine. American Society of Agricultural Engineers 1967

Effect of Low-Volume and High-Volume Aeration on a Hog Lagoon. American Society of Agricultural Engineers 1967

North Dakota Frozen Food Unit. Extension Service 1967

Transducer to Measure Very Low Velocity of Air. 1967

Some Mechanical Properties of Frozen High-Moisture Barley American Society of Agricultural Engineers 1967

1/9 Publications: 1968-1970

Lagoons for Farm Wastes Farm Research 1968

Reuse of Wash Water for Cleaning Caged Layer Houses American Society of Agricultural Engineers 1968

A Switch for Sensing the Current Flow to Remote or Submersed Motors American Society of Agricultural Engineers 1970

Demineralizers used on Domestic Water Systems. American Society of Agricultural Engineers 1970

Using a Single Thermostat to Control Heating and Ventilation in a Greenhouse. American Society of Agricultural Engineers 1970

Sewage Disposal Systems for your Farm Home. Extension Bulletin 1970

Solid State Timing Circuit for Stepping Switch American Society of Agricultural Engineers 1970

1/10 Publications: 1971-1972

Beef Confinement Housing and Equipment. Ag Engineering Department 1971

Solid-State Instruction at the College Level. American Society of Agricultural Engineers 1971

Some Mechanical Properties of Frozen High-Moisture Barley. American Society of Agricultural Engineers 1972

The Effect of Macroreticular Resins on General Water Quality and on the Removal of Organic Coloring from Ground Waters in Southwestern North Dakota. American Society of Agricultural Engineers 1972

Treating Colored Water in Western North Dakota. American Society of Agricultural Engineers 1972
Publications: 1973-1974

*Treating Farm Water with Reverse Osmosis.* American Society of Agricultural Engineers 1973

*Vacuum Filtration of Cattle Manure.* American Society of Agricultural Engineers 1973

*Removal of Organic Coloring from Groundwaters with Macrocyclic Resins.* American Society of Agricultural Engineers 1973

*Cable Driven Scrapers for Manure Collection and Liquid Solid Separation.* American Society of Agricultural Engineers 1974

*Energy Requirements for Feed Processing.* 1974

*Livestock Ventilation with Heat Exchange.* American Society of Agricultural Engineers 1974

*Waste Disposal Systems for Rural Homes.* Ag Engineering Department 1974

Publications: 1975-1976

*Twenty-Five Years with the Nodak Waste Disposal System.* American Society of Agricultural Engineers 1975

*Reverse Osmosis for Treating Farm Water.* Canadian Society of Agricultural Engineering 1975

*Consumer Evaluation of Water Quality Before and After Installation of a Reverse Osmosis System.* American Society of Agricultural Engineers 1976

Publications: 1976

*Evaluation of North Dakota’s First Rural Water System.* North Dakota Agricultural Experiment Station 1976

Publications: 1979

*Analytical Performance Evaluation of Small Scale Wind and Solar Energy Systems.* American Society of Agricultural Engineers 1979

*Reclaiming Heat from Exhaust Air in a Confinement Barn by Means of a Heat Exchanger.* American Society of Agricultural Engineers 1979

*Reverse Osmosis in North Dakota.* 1979

*Temperature Distribution in a Beef Barn Using a Perforated Ceiling Air Distribution System.* American Society of Agricultural Engineers 1979
Using Rocks to Reclaim Heat from Exhaust Air in Beef Barn. Ag Engineering Department. 1979

1/15 Publications: 1981-1989

Bacterial Problems with Reverse Osmosis Units. American Society of Agricultural Engineers 1981

Improving Water Quality on Farms in Less Populated Area of North Dakota. American Society of Agricultural Engineers 1985

Design of Rooms for Housing Laboratory Animals American Society of Agricultural Engineers 1989

Academic Series
1/16 Newspaper Clipping
1/17 Bringing Light to the Valley – 1989
1/18 “Lighting the Prairie” Lecture
1/19 Water Treatment Tapes (2)
1/20 Course Outline – Boy Scout Leadership – Ag Education – 1982
1/21 Course Outline – Volunteer Leadership Techniques – Ag Education – 1988

Slide Series
1/1 Pump Installations
1/2 Water Treatment
1/3 Possible Environmental Impacts by Transmission Lines
1/4 Motors
1/5 Refrigeration Presentation
1/6 Solar Heat
1/7 Heating
1/8 Controls For Agriculture
1/9 Dairy Barns
1/10 Unknown Presentation 1
1/11 Unknown Presentation 2
1/12 Unknown Presentation 3
1/13 Unknown Presentation 4
1/14 Unknown Presentation 5
1/15 Unknown Presentation 6

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