As Cooperative Extension marks 100 years of working for Wisconsin, the following is an excerpt from Cooperative Extension in Grant County – The First Forty Years by Wilfred Pierick, written in 1963.

In the Soils Area

Soils Testing - During the twenties, yearly soil tests for acidity or "lime" content were made in the county agent's office (Jack Keenan from 3/1923 to 1/1934), the number of samples tested ranging from 100 to about 300 annually. About 1928, in addition to testing for acidity, the available phosphorus test was added of the service to the farmers of the county. A sizable increase in the number of samples tested was realized in 1932, with 750 samples being tested for both "lime" and phosphorus.

Complete tests for acidity, phosphorus and potassium were available to farmers during this entire period through the State Soils Laboratory. On the average, anywhere from 20 to 50 farmers in the county took advantage of this service annually.

Lime Production Grows - As mentioned earlier in this writing, there is an abundance of limestone underlying the soil in most all areas of Grant county. The production of agricultural limestone, therefore, became "big business" in Grant county in the years to come.

By 1932, nearly 300 samples of lime had made their way across the county agent's desk and were sent **to** the State Soils Laboratory for purity analysis of actual lime content—referred to as "neutralizing" value of the available lime. From the two quarries opened up in 1919, during the time of county agent Davies, the lime production in the county increased from 4000 tons crushed in 1923 to an average of 30,000 tons annually

in the period of 1926 to 1932. The price of crushed limestone to the farmer was reduced from \$3.25 per ton in 1923 to about \$2.00 per ton, on the average, thus saving the farmers an average of \$1.25 per ton. The county agent, during this period, besides acting as a "middleman" for the testing of limestone samples, also worked hard in assisting with the initiation of opening up new quarries and getting crushers into operation.

During this period, an unusual discovery of a deposit of "what appeared to be pure sand" but was found to be almost pure lime, was made in the township of Bloomington. No grinding was needed here. The lime just needed to be shoveled and hauled. It was also discovered that road gravel screenings in Glen Haven township could be used for lime and over 1000 tons were delivered to farmers at a cost of only \$1.60 per ton.

Demonstrations Prove Benefits - Many demonstrations on the value of lime on legume crops were conducted. In 1922, demonstration plots showing the benefit of lime on sweet clover were held on the Ellsworth Holzinger farm in South Lancaster; while similar plots were planted on the Fred Glanville farm, west of Liberty, and on the William Frankenhoff farm, north of Fennimore.

In 1926, a demonstration on the Bert DiVall farm in North Lancaster showed the value of lime "applied nine years ago" on sweet clover fields, comparing fields where lime was applied with fields where it was not applied.

During this period there were also many demonstrations on the use of commercial fertilizer held. Acid phosphate was claimed to be the "short stave in the barrel" - the most critical element in short supply in Grant county soils at that time. The conclusion drawn from the application of 2800 pounds of acid phosphate distributed in 1926 for "try-out" purposes to farmers in the county was that "phosphate proved best and is cheaper than complete fertilizers."

In 1928, in a demonstration held on the Grant County Farm, at which 1500 people were in attendance, 300 pounds of 4-8-6 applied per acre on sixteen and one-half acres of potatoes, increased the yield "by forty-eight "bushels of potatoes per acre, with an increased profit of \$17.64 per acre. A much greater profit was realized on the William Frankenhoff farm in Hickory Grove township, however, with the application of 700 pounds of 4-8-6 per acre on potatoes. The additional profit per acre was said to be \$50.46.

By 1932, recommendations began to be made for more "high analysis" fertilizers in the interest of saving on transportation and handling costs. High analysis fertilizers have less "filler" per sack than low analysis fertilizers.