**NRCS 90th Year Series One – Gwen McCausland with the Agricultural Heritage Museum**

**Keith Weinberg**

Welcome back to our day at WNAX five State Farm reports I'm Keith Weinberg. I'm excited to announce today that we have teamed up with the NRCS service, and we're talking about 90 years of them being in service. We have put together a three-part series. So today we kick off part two, number one, as we team up with Gwen McCausland. She's the director of the South Dakota Agricultural Heritage Museum. Gwen, thank you very much for taking time being with us here today.

**Gwen McCausland**

Well, thank you for having me.

**Keith Weinberg**

Yeah. So let's talk a little bit. First of all, as we look at the history of things, just give us a little bit about what's going on there at the museum.

**Gwen McCausland**

Yeah. So at the Agricultural Heritage Museum we have two new exhibits. One is on digging in Dirt secrets. So secrets in soil. And it's about soil health and about learning biodiversity and how we can help as stewards of the soil.

**Keith Weinberg**

Now, I understand, is this kind of a hands-on type of a little program?

**Gwen McCausland**

Yes. It's very much about like what you would see in a science museum. And so, it has interactive, it has ways in which you can do your own soil health testing, like soil in your undies, where you bury a pair of cotton briefs, and to see how healthy your soil is.

**Keith Weinberg**

Oh, that ought to be interesting. And so you said this is open to the public. It's free and it's available for how long yet?

**Gwen McCausland**

This particular exhibit is up for two more years.

**Keith Weinberg**

Oh, okay. All right. Well, and that's located there on campus for some of those that might be listening here today.

**Gwen McCausland**

Correct. We are right on the corner of the dairy and the 11th Street.

**Keith Weinberg**

All right. Well, I appreciate you taking some time talking about that. Some of the exhibits there. What are some of the other things that the Heritage Museum is well known for?

**Gwen McCausland**

Well, we do a lot of programing and we have a lot of school tours. What we like to do is, of course, our mission is to inspire passion for the diverse history, culture and science of agriculture in South Dakota. So we like to bridge about history and the science that is really what's happening today, but also from the past. And so that leads up to what we are going to be talking about today.

**Keith Weinberg**

Exactly. And that is the NRCS office celebrating 90 years of really being around. As we dig a little bit deeper into that history, tell us a little bit about what you know on how things really got started.

**Gwen McCausland**

Well, how it really began was back in the 1930s with a new deal under, said Franklin Delano Roosevelt, way in which to combat the depression and, of course, the severe drought. It was 1933 under the National Industrial Recovery Act. And those funds went to reduce, soil erosion. It was a serious issue where, over 30,322 million acres affected and 35 million just in the Great Plains. And so what they did is, from 1935, they created a, soil conservation service. That, of course, evolved into NRCS.

And what they did is they worked with farmers to create demonstration farms to see how effective different techniques would be for, combating erosion. And one particular professor here on campus, his name was Joseph Hutton. He was the first soil scientist in South Dakota. And he was hired by the SCS to do soil survey and to also work with these farmers.

Where he was teaching these farmers back in the day was about what they constantly talk about today to about, soil, conservation in using covered crops and windbreaks and things like that. And then, of course, it continued on, where they were able to help replenish the soil and develop, regions to help with those particular types of soil.

**Keith Weinberg**

You think about that that started how many years ago today, the importance of the soil health. And just taking care of our conservation practices and how that evolved into where we're at today. But think about the technology that was back then.

**Gwen McCausland**

Yes. And he what was interesting is that, he worked with not only, farmers, but he also worked with various scientists to do testing. And he worked in doing the first soil surveys so that at that time people thought dirt was dirt. And if you if you plowed up the land, it would bring rain. And in South Dakota, we actually had 20 years of drought in 1920s and the 1930s. And so we had some serious issues that was actually worse than it was in the, panhandle of Oklahoma and Texas.

**Keith Weinberg**

Why you think about that drought, for 20 years there. And then the fact that, if you till up the soil, it will bring rain. And I think, I think a lot of people would be out kind of tilling up things today if it'll help bring some more rain.

**Gwen McCausland**

Well, and of course, that just created dust storms and they called them black blizzards at the time. And what we found out is Joseph Hutton was doing this research in the 1920s, and he predicted the Dust Bowl was going to happen with the current, practices at that time. And so we were able to get a grant from, NRCS to take those resources or research information from the 1920s and have our soil scientist here at SDSU go and retest those to see what 100 years of cultivation has done to our soil.

**Keith Weinberg**

Yeah, the dust storms. That was also very, big thing back, in the 20s, 1920s. And even yet today we'll see some of that. But that's where the cover crops definitely come into play.

**Gwen McCausland**

It keeps the soil in place. Yes. And then also brings that nutrients back into the soil.

**Keith Weinberg**

Interesting. Again, if somebody is looking for some more information or kind of like that hands on experience, a good way to reach out, find some out. Find out more information. What's a good way to do that? Gwen.

**Gwen McCausland**

Yeah. Visit our website AGmuseum.com. And we're also on all the social media sites around.

**Keith Weinberg**

I appreciate you taking some time here this morning. Connecting with us from, Brookings as we talk about this three part series, just kind of given the history here, we do look forward to the next part of it. But, as always, thank you very much for your time and your insight on how this history is all working for us.

**Gwen McCausland**

Any time.

**Keith Weinberg**

All right. That's our special guest here today, part number one, Gwen McCausland. She's the director of the Agricultural Heritage Museum at SDSU, South Dakota State University. Interesting. You start talking about the history, the dust storms and how that all came to play for us, over these years.