

537 Buffalo Bird Woman

#RealisticRegenAg | Buffalo Bird Woman was one of the last Indigenous farmers in what is now North Dakota. Fortunately, her story was preserved. I've referred to a book about her many times in my podcast and in presentations to farmers. In this episode, I'd like to introduce you to her and hopefully inspire you to read the book yourself.

Welcome to Plants Dig Soil, a podcast about #RealisticRegenAg. I'm your host, Scott Gillespie, and I'm an agronomist from the western Canadian prairies specializing in climate-smart agriculture. I discuss scientifically proven practices that benefit the planet and, just as importantly, farmers' economic sustainability. Be sure to visit my website, www.plantsdigsoil.com, for resources and information about the services I offer.

Resources mentioned:

<https://www.amazon.ca/Buffalo-Bird-Womans-Garden-Agriculture/dp/0873512197>

NOTE: The Minnesota Historical Society Press no longer lists this book on their site. This is the only link to the book that I can find other than many free versions (as it is out of copyright).

Transcript is available:

<https://www.plantsdigsoil.com/podcast/buffalo-bird-woman>

My consulting packages:

<https://www.plantsdigsoil.com/pricing/#consulting>

My funding service offerings:

<https://www.plantsdigsoil.com/pricing/#paperwork>

SCAP overview: <https://youtu.be/OicitHJR2lk>

SCAP program details <https://www.alberta.ca/sustainable-cap.aspx>

My course: Profitable From the Start: Cover Crops for the Prairies:

<https://plantsdigsoil.thinkific.com/courses/cover-crops-prairies>

Newsletter signup:

<https://mailchi.mp/plantsdigsoil/newsletter>

<https://www.linkedin.com/newsletters/6944029544697802752>

Email: scott@plantsdigsoil.com

X (aka Twitter) (Scott): <https://twitter.com/scottcgillespie>

X (aka Twitter) (Company): <https://twitter.com/PlantsDigSoil>

LinkedIn (Scott): <https://www.linkedin.com/in/scottcgillespie/>

LinkedIn (Company): <https://www.linkedin.com/company/plants-dig-soil>

YouTube: (Company): <https://www.youtube.com/@scottcgillespie>

Podcast Subscription Apps: <https://podcasters.spotify.com/pod/show/scottcgillespie>

The reason we have the book “Buffalo Bird Woman’s Garden” is that in the late 19th century, an anthropologist named Gilbert L. Wilson decided to learn Hidatsa farming techniques and record them for history. He was unlike many of his contemporaries in that he tried to maintain a neutral tone and just present what was given. This approach sounds reasonable now, but at the time, most anthropologists, regrettably, were racist. They held the viewpoint of European superiority and looked down at others as being primitive.

A note on the title: I’m not sure why it was published like this. I prefer the original one: Agriculture of the Hidatsa Indians: An Indian Interpretation. Keep in mind that Indian was the commonly used term then and is still commonly used in the United States. I believe this is not gardening, this is farming.

When I read this book, I was struck by how similar her techniques were to European farmers. First, she broke up Prairie land for agriculture. She used the river bottoms because the high plains were too dry and infertile for growing crops. Of course, another reason was the location of the village. They were in the river flats for easy accessibility of water and other resources. She would start a year in advance to prepare the land for cultivation, knowing that it took that amount of time to clear the brush and trees, burn the grass, and work the soil.

Once it was time to plant, she had very specific methods for how the crops were planted. There's a diagram in the book showing her crop plan. It's not the typical "three sisters" combination we might envision. The beans and corn were intercropped, but the squash was planted in rows between them. Sunflowers were also included, used not only for their oil but also for their aesthetic appeal.

Speaking of varieties, I was struck by her interest in the latest genetics. Trade networks allowed different types of corn to make it from the southern areas. She would experiment with them, and if she liked them, she would start using them. She was adamant about seed saving. The best seed was kept aside to ensure she had a crop for the next year. She tried to maintain a two-year supply knowing that hail storms, droughts, or early frost could occur any year and wipe out her crops.

The village was composed of families, and the women grew the crops. She had scorn for those who did not save enough seed. The more careless might deplete their supplies over the winter and then come to her for seed. She didn’t give it to them without compensation, asking for a tanned buffalo skin for every 65 ears of corn.

Buffalo, and other smaller animals, were hunted by the men. This hunting provided stability to the system. In good hunting years, there were more materials and meat from the buffalo, and farming relied upon less. When buffalo were scarce, farming provided more. Of course when both were scarce there were problems. However, if they used their supplies well and had extra stocks in the river banks cold storage caverns, they could make it through.

What I love about this book is that it roots North American agriculture before European settlement. While it seems it had not yet spread to what is now Canada, it was on the move. It is estimated that the agriculture Buffalo Bird Woman practiced had been ongoing for 700 years.

I view this as sustainable agriculture. There were fewer people on the land, and when the land wasn't producing as much, they could move on. Recall that I mentioned her breaking the land to grow food. She also practiced fallow. She noticed that the first year was always the best and that the second year was usually similar in yield, but not better. She would let fields rest for years and then return to them. Since there was plenty of land available, an abandoned village site could sit for generations to restore before being used again. Being on the river bottom, an occasional flood year bringing nutrient-rich silt and clay could replenish the soil. This was also sustainable because nothing was exported to distant countries. Everything lived and died in the same area. There was a cyclical flow of nutrients.

There will be a link in the description for the book that will direct you where you can buy it. You might also be able to borrow it from your local library.

As for the life of an agronomist, the fall work is fully underway. We are experiencing nice temperatures here that allow for preparation for next year's crop. Potato farmers typically try to get the majority of their fields hilled for the following year. This involves pulling a piece of equipment with blades 3' apart that pull soil from about 6" down and fold them into rows about 6" above the soil surface. The action of winter freezing helps to break down the clods for a better potato hill.

There has been more experimentation with fall cover crops on these hills. Seed can be broadcast ahead of making the hills and that gets incorporated and grows with a little moisture. At this point, it's too late to do this. There's not enough growing season left. Seed that was planted in early September is only just greening up the surface. To make this work the best, it needs to be done in mid to late August. However, with all the other activities on the farm, it's hard to find the labor and equipment to do this.

I believe this will change when there are tangible benefits that farmers can see right away. On the east coast of Canada, farmer observations and experimental evidence are showing that buckwheat can reduce wireworm populations. Some limited experimentation with this happened this fall. The proof will be in the harvest of the potatoes in the fall of 2024. Stay tuned for updates, and I'll talk to you again next week.