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COLUMNS

Campbell Vaughn: Windmills made a 'big' impression on recent road trip through Kansas

Campbell Vaughn Columnist

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I love road trips, mostly because seeing things that I have never encountered reminds me that there is so much outside the bubble I tend to live in within 150 miles of Augusta.

I was able to make a fun road trip happen last week with a buddy of mine because of the need to get a car back to Augusta from Denver, Colorado. We each traveled to Denver separately. While I visited with some old college friends, Jeff rode up to southern Wyoming to pick up said vehicle. When we finally got together, we had not a single plan on how long we were going to take to return or which route we would take.

I did have one thing on my list that I wanted to do and that was to spend the night in Kansas. (On a side note, I am trying to spend the night in all 50 states and Kansas was my 41st state.)

We started our journey from the Denver airport and headed east. We didn't have much expectation for the drive across the heartland of America, but I can tell you eastern Colorado and western Kansas are beautiful; long expanses of rolling farms and ranch land with views for miles. And then came the windmills.

You start seeing something that looks like a weirdly shaped skyscraper in the distance until you get close enough to see what it is that is taking up so much room on the horizon. When you finally get close enough, there are hundreds of them. And they are not the little ones you imagine Don Quixote fighting. These things are massive.

Being the curious fellow that I am, I had to find out what was the deal with all these windmills, and I found out a lot.

Kansas is the No. 2 producer of wind-powered electricity in the U.S., next to Texas. Kansas has approximately 4,000 to 5,000 wind turbines spread across various wind farms. (In

comparison, Texas has about three times as many spread across most of the northern part of the state and into the panhandle.)

Campbell Vaughn: The culprits attacking the bark on your trees could be European hornets

Kansas wind farms produce a substantial amount of electricity with an annual production of approximately 40 million megawatt-hours (MWh). This output is enough to power around 4 million homes each year. For Kansas's total electricity generated, wind accounts for 40-45%. This amount of electricity is significant for the state and for sharing power nationwide.

The mast or tower of the windmill wind turbine typically stands between 260 to 330 feet tall from the base to the nacelle, which is the housing at the top. According to energy.gov, the nacelle is considered the turbine's "heart" because it converts wind energy into electricity.

The nacelle's drivetrain converts the rotor's low-speed rotation into the high-speed rotation needed by the generator to produce electricity. The nacelle can rotate 360 degrees on its axis to face the wind, and some nacelles can be as large as a small house and weigh more than 4.5 tons.

The rotor, which consists of the three blades and the central hub, has a diameter ranging from 250 to 400 feet with the most common rotor diameter being around 300 feet. Each of the blades is between 120 to 200 feet long.

This means that the total height of the turbine, from the ground to the tip of an upright blade can reach 500 feet.

I love chances to travel and see new things. In a few weeks I will have to tell you about all the rice fields we saw in Arkansas. The statistics of the amount of rice produced there are staggering.

Keep an eye out for fall army worms. They got ahold of my Bermuda lawn while I was out of town looking at windmills in Kansas. They ate me up. I sprayed them with permethrin which seemed to have stopped them, but it will be a few weeks before I have a nice lawn again.

