HOPS & TERROIR

BY TAMARA MULDOON

BEGINNING IN LATE 2018, farmers from Coleman Agriculture (*colemanag.com*), Oregon's largest hop grower, launched a year-long study into the effects of terroir on the flavor profile of hops. The study team included scientists from Oregon State University's (OSU) College of Agricultural Sciences, and a soil scientist from Red Hills Soils.

Coleman Agriculture is a sixth-generation family-owned and -operated farm based near St. Paul, Oregon. The company grows a range of crops, managing more than 8,000 acres throughout the Willamette Valley. Each year they produce more than two million pounds of hops from as many as 24 different varieties.

To conduct the study, Coleman Agriculture grew two well-established hop varieties—Sterling and Centennial—in four different locations featuring two distinct soil types. Scientists analyzed soil characteristics, weather conditions, and crop management practices as well as the chemistry of the resulting hops.

The hops grown for the study were brewed into beer using identical techniques and ingredients—the only difference being the hop varietal and where it was grown. An expert tasting panel was then convened to determine if there were perceptible sensory differences between the beers brewed with hops from each study location. The answer was a resounding "Yes!"

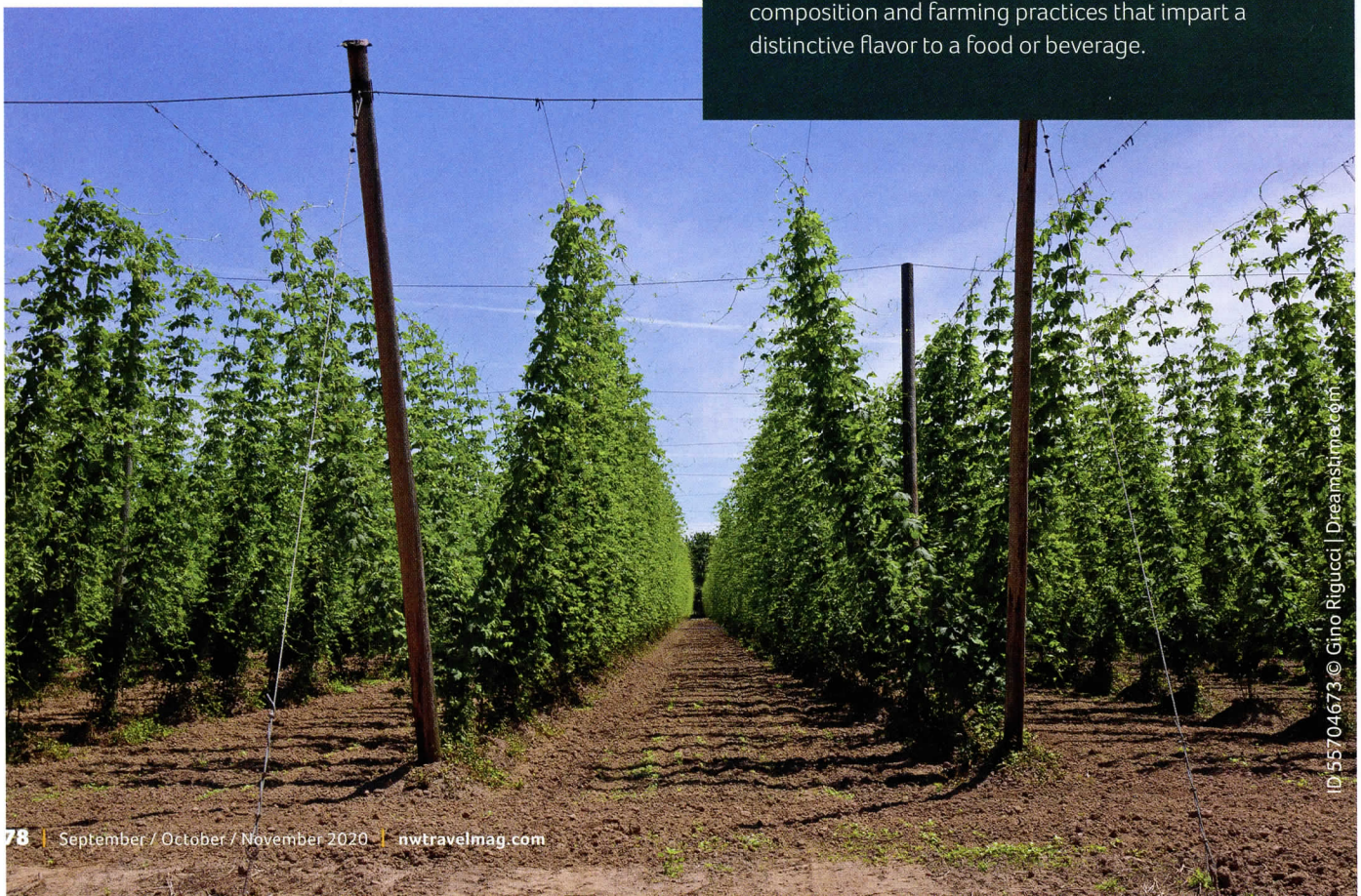
"The most important thing we learned is that terroir does measurably affect the hops," said OSU Professor of Fermentation Science, Dr. Tom Shellhammer, who led the scientific team. "This isn't the end of the story; it just verifies that there is something there worth investigating."

"Growing hops and brewing beer are each an intricate blend of science and art, and we know intuitively that the flavor of hops can vary from field to field, and that some beers have a distinctive taste that could only have been created by hops from a specific yard," said John Coleman, farmer and partner at Coleman Agriculture. "This study validates what so many of us farmers and brewers have instinctively known—that there are differences, and that they matter. But now we've started to learn *why* those differences exist."

In January 2020, Coleman Agriculture initiated a second hop terroir research project, again in conjunction with OSU and Red

What is Terroir?

Factors including climate, topography, soil composition and farming practices that impart a distinctive flavor to a food or beverage.



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Hill Soils. This study is researching three new aroma hop varieties grown on four Coleman farm regions ranging 45 miles apart. Coleman will utilize the data to guide strategic crop decisions and land management practices.

Oregon is the country's third-largest hop-growing state by volume, after Washington and Idaho. Arguably, Oregon's Willamette Valley is the best area in the country to grow aroma hops (as opposed to bittering hops). Aroma hops, also called "finishing hops," are added toward the end of the brewing process, adding unique flavor to the beer. These factors made this the ideal location for hop terroir research.

"As with our first study, we invite and encourage discussion and participation with industry partners, influencers and decision makers as we use science to understand and strengthen regional distinction in hops," states Liz Coleman, Terroir Project Lead. "This is only the beginning of an exciting movement for the entire beer industry, with the potential to benefit hop farmers, brokers, brewers and beer enthusiasts worldwide," she adds. "Together, as those of us in the industry continue to learn and share research into terroir's impact on hops, we will position Oregon as one of the world's premier sources for high-quality hops and brews. And that's good for everyone who loves beer."


Fresh Coleman Hops

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