

BULLISH ON BIOCHAR

OSU agronomist seeks to expand field trials of the charcoal substance, which offers the **promise of water savings, soil benefits**

By **GEORGE PLAVEN**
Capital Press

Stephen Machado reaches into a clear plastic Ziploc bag and pulls out the brittle but still intact remains of a pine branch collected from the Umatilla National Forest in Eastern Oregon. The blackened tree limb looks and feels a lot like charcoal.

In fact, that's exactly what it is.

Woody debris from the forest is just another raw material for making what is known as biochar, which can also be made from organic material such as leaves, grasses, crop residue and even manure.

Machado, a professor and agronomist with the Oregon State University Extension Service, believes biochar has a huge upside potential for dryland farms in the arid Columbia Basin.

Working at the Columbia Basin Agricultural Research Center north of Pendleton, Ore., Machado stumbled onto biochar as part of his mission to make local wheat farms more sustainable. Most growers in the area use a fallow rotation, meaning they grow a crop every other year and leave their fields fallow during the off years to build soil moisture. But Machado said that system has led to a steady decline in soil organic matter, which is the foundation of crop health and productivity.

"Organic matter is a source of nutrients for both the microbes and the crops," Machado said.

Still, farmers are reluctant to give up fallow — especially in areas that get less than 10 inches of rain per year. With such little water available, they need every drop to grow enough wheat to pay the bills.

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Since 2012, Stephen Machado, agronomist for Oregon State University Extension Service, has conducted small field trials for biochar on wheat and peas at the Columbia Basin Agricultural Research Center north of Pendleton, Ore.
George Plaven/Capital Press



Field trials began in 2012 at the Columbia Basin Agricultural Research Center examining the effect of biochar applied at different rates on fields of dryland wheat.
Stephen Machado/OSU Extension



Don Seabrook/Wenatchee World via AP

Forecasters predict a busy year for wildfires in much of the West.

Busy wildfire season forecast in much of West

By **BRAD CARLSON**
Capital Press

Forecasters say they expect a busy wildfire season in much of the West.

The National Interagency Fire Center's Predictive Services unit said in a May 1 report that it expects warmer- and drier-than-average conditions across the West.

Fire forecasters said they are concerned about the heavy 2017 growth of brush and grasses across

wildlands, coupled with newly grown grass that will cure by July across California, the Great Basin and Oregon. At the same time in these areas, higher timbered elevations are at greater risk of fire due to a below-average snowpack.

Basil Newmerzhicky, NIFC Predictive Services meteorologist in Salt Lake City, said in an interview he's concerned about elevated wildfire prospects for Idaho's west central mountains — generally from McCall west to the Oregon line —

and for southeastern Oregon.

"Western Idaho is a concern because we are expecting much warmer, drier conditions compared to the average summer," he said. Snowpack is at or just below normal there, and at or above normal to the east.

Newmerzhicky sees fairly high fire risk in the Idaho-Oregon-Nevada border region due to lower precipitation recently. From October

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Farmers in many parts of Oregon brace for low water year

Third county seeks drought designation

By **GEORGE PLAVEN**
Capital Press

Despite a mercifully wet April, water shortages remain likely for farmers and ranchers across much of Oregon, especially in southern and eastern portions of the state that are

dealing with the onset of drought.

Gov. Kate Brown has already declared a drought emergency for Klamath and Grant counties, while a request from Harney County is pending, according to a spokeswoman for the Oregon Water Resources Department.

The USDA Natural Resources Conservation Service released its May 2018 Oregon basin outlook report, detailing stream flow forecasts

heading into summer. Though statewide precipitation was 124 percent of average for April, most of the state is still below average for the water year dating back to October.

As of May 6, the Hood, Sandy and Lower Deschutes basins are holding onto 95 percent of their normal snowpack for the season. Nowhere else is even close to average, with the John Day and Owyhee basins at 2 and 5 percent, respectively.

"During a normal May, about 45 percent of our snow monitoring sites are snow-free," said Julie Koeberle, snow survey hydrologist for NRCS Oregon. "This year, 60 percent are without snow."

Just eight snow monitoring sites recorded above-average snow for the season — all on the west side of the Cascade Range. More than

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